UPHALL CAMP, UPHALL ROAD, ILFORD

A post-excavation assessment

Site Codes HOW60, HOW61, ILF-UC83, ILF-UC87

Alison Telfer with contributions by Pamela Greenwood

Executive summary

This report is intended to inform the reader of the results of the archaeological investigations at Uphall Camp, Ilford, Essex, from 1960 to 1989, by the Passmore Edwards Museum (PEM), later Newham Museum Service (NMS).

Four phases of fieldwork produced evidence of activity on the site or in the area from the Mesolithic to the post-medieval period. Stray flintwork was recovered dating to the Mesolithic and Neolithic periods; the sparse finds are interpreted as evidence of people hunting in the Thames-side marshes. Two possible phases of Bronze Age settlement have been identified (Middle and Late), largely in the area of the site fronting Uphall Road. The majority of the archaeological stratigraphy on the site belonged to the middle Iron Age and a total of nine round buildings with gullies were recorded. Large defensive ditches and numerous small pits and post-holes were also recorded. Uphall Camp is the largest known Iron Age settlement of its kind in the region. Earthworks from the univallate camp had initially been recorded in *c*1735 by John Noble (see Front Cover).

Roman activity on the site dates from the mid-late 1st to the 4th centuries AD. A rectangular enclosure dating to the 2nd century had associated internal ditches and a possible well in its north-eastern corner. The nature of the finds retrieved suggests that this phase of occupation may have been associated with specific activities, possibly with a religious significance, rather than as a defined settlement. There is also evidence for a Saxon settlement and activity in the western side of the site, by the River Roding. From the medieval period until the 16th century, the site was possibly taken over as a farm; a farmhouse at the northern end of the site is first recorded in 1535. In the same period, there is evidence for the construction of the Lavender Mount. This was a large artificial mound formerly situated in the north-western corner of the site, and may have been associated with a windmill. The majority of the eastern half of the camp was covered over with housing in the early 20th century and part of the western half destroyed by Howards Chemical Works.

In 1973, PEM became the body responsible to the Department of the Environment for rescue archaeology in north-east London. Grants were paid for excavation, but not for post-excavation work. The implementation of Planning Policy Guidance Note 16 in 1990 changed the availability of funds so that money was made available for the entirety of a project. A post-excavation assessment for the site was completed in 1997 (Greenwood, 1997), however and a large amount of information from that document has been transferred into this report. This assessment was undertaken in order to review the results of the excavation at Uphall Camp, as part of a larger project to integrate the results from a number of previously unassessed PEM sites. It is hoped that a clearer picture of the archaeological landscape of East London will emerge.

Specialist assessment reports have been written for the artefactual and environmental information collected from the entire sequence of fieldwork. These reports can be found in section 5. It must be noted that research at this stage is incomplete: only a third of the prehistoric pottery and less than half of the building material, for example, have been assessed.

The information from both the fieldwork and the specialist reports requires more detailed assimilation to give a better understanding of the economic, domestic and environmental conditions which resulted in the archaeological sequence on the site. This will enable a broader consideration of the results from other archaeological

sites in East London, enriching our understanding of the archaeological record of this region and allowing comparisons with contemporary settlements in other regions of the London area and along other stretches of the Thames.

This report is written and structured in a particular way to conform to the standards required of post-excavation analysis work as set out in *Management of Archaeological Projects* (English Heritage, 1991a).

Contents

Figures

Front cover: Photograph taken in 1926 showing the last remaining part of the Iron Age bank, with the Lavender Mount in the distance to the right; facing south-west

Tables

1 Introduction

1.1 Site location

The fieldwork took place at Uphall Road, Ilford, Essex, which is situated at the confluence of the River Roding and the stream Loxford Water (Fig 1). The site lies on the southern boundary of Ilford, on a well-drained patch of Taplow terrace gravels close to the present marshlands in the area between Barking and Ilford in north-east London, in metropolitan Essex. The site is bounded by Uphall Road to the east, Uphall Primary School to the north, the River Roding to the west and Bluebell Way to the south. It now lies in the parish of Great Ilford in the London Borough of Redbridge; prior to 1888, it belonged to the parish of Barking. The Ordnance Survey National grid reference for the site is 543800/185000.

1.2 The scope of the project

This report covers archaeological fieldwork carried out at Uphall Camp, Uphall Road, Ilford, Essex. It refers to work carried out in 1960–1961, 1983–1984 and 1987–1989 by the Passmore Edwards Museum (PEM), later Newham Museum Service (NMS). The time span of the project necessitated the allocation of four different site codes, HOW60, HOW61, ILF-UC83 and ILF-UC87. It should be noted that although the finds were present from HOW60 and HOW61, the site notes from those excavations have not been traced. In addition, the MoLAS Oracle database for ILF-UC83 and ILF-UC87 condensed the site codes to become 'IL-UC83' followed by the area letter, for example, IL-UC83F. This does not affect the written or artefactual record and the conclusions can be read for the site as a whole.

The aim of the project is to assess the archaeological significance of the findings made during the fieldwork, putting the results in a wider context, whether local, regional, national or international. It will address these issues and introduce updated research aims and objectives raised by the discovery of evidence on the site. Results from other sites in the vicinity will be integrated to advance the knowledge of the history of the area.

The major body of evidence is from the Middle Iron Age period, dominated by the defensive ditches and nine round-buildings with gullies. Evidence of settlement has also been recorded from the Middle Bronze Age, a rare discovery in London, the Late Bronze Age, and Roman, Early Saxon and Medieval periods.

1.3 Circumstances and dates of fieldwork

The phases of work conducted on the site were as follows:

1960 (HOW60), Excavation in north-western area of site, by the Lavender Mount

1961 (HOW61), Excavation north-western area of site, by the Lavender Mount

1983–1984 (ILF-UC83), Excavation in Areas A, B and C

1987–1989 (ILF-UC87), Excavation in Areas D, E
Watching Brief in Areas F, G, H, J, K, L and 'Bark Tip'

Each phase of work undertaken between 1960 and 1989 is illustrated on the site plan as shown in **Error! Reference source not found.**. The site was split into 14 gridded areas, each allocated a letter (ie A–P: the letters 'I' and 'O' were not used). The investigation only gained access to Areas A–L due to contamination by the chemical works. An additional area was investigated in the north-western area of the site: this was called the 'Bark Tip'.

Despite some attempts at preserving the earthworks at the turn of the century, the site was split in two, the eastern 'half' being covered by housing which is still standing. The western 'half' became the site of Howards Chemical Works, later Laportes. In 1960, when Howards Chemical Works were carrying out building work, PEM investigated the entrance area beside the 16th or 17th century Lavender Mount. Sections (recorded as 'cuttings') through part of the earthworks, which comprised a large ditch and a bank, disclosed middle Iron Age pottery. There were also traces of a palisade. The chemical works finally closed down in the 1970s. The site lay in a partial state of decay, used for such activities as car-valeting and dealing, until it was sold for development in 1984. Demolition of the chemical works allowed further work to be carried out by PEM and an excavation took place in Areas A–C. Although there was considerable disturbance from factory buildings of the ?1930s in Area A, Areas B and C survived with only a small amount of damage, being near the laboratories and under loading bays.

As a result of the archaeological work in 1983, it became clear that the archaeology of the interior was much better preserved than had been previously thought. The excavation revealed drainage gullies, ditches and small pits.

Disturbance by factory buildings and contamination from chemicals affected certain areas. The area with the worst problems was that of the earthworks: the huge ditches were ideal linear pits for dumping factory waste. Consequently, there was little opportunity to investigate the defences.

In 1987, the new owner applied for outline planning permission and a further period of archaeological investigation began, briefly interrupted when the site was sold yet again, but resumed under the new ownership, as the development of a housing estate began. Redevelopment on the site did not begin until August 1988, with the initial removal of the contaminated material present on parts of the site. For this reason, although it was possible to fully excavate the former gardens and workers' allotments along the Uphall Road frontage, parts of the interior and western edge of the site remained out of bounds.

The archaeology of Areas D and E was the best preserved, having been relatively protected from modern disturbance and preservation was still good enough for detailed plans to emerge of the interiors of the round-houses and many post-built, earth-fast structures. Areas A–E were investigated by rescue excavation. The watching brief in 1989 largely covered an archaeological and environmental examination of the waterfront (Areas F–L). The total area of the site that was excavated in detail amounted to approximately one hectare, out of a possible 13 hectares.

Due to the presence of the chemical works on the site, no excavation or archaeological work was undertaken in areas of contamination, mostly the northern and southern ends of the site, which incorporated much of the line of the western

earthworks, and in contexts which reached the water-table. All but the 1960s area, the remainder of the earthworks and Lavender Mount, were tested and monitored regularly. Some areas were monitored constantly for contamination and radioactivity by national bodies, by the developers scientists (some on site at all times) and by the North-East London Polytechnic chemistry and physics departments (now University of East London), the Passmore Edwards Museum's advisors (data in the site archive). Archaeological work was only allowed to proceed in areas with the all-clear from the beginning (the frontage etc and parts of the watching brief) or those areas which had been decontaminated (parts of the watching brief).

Funding for the site was provided by English Heritage, London & Edinburgh Trust and Newham Council.

1.4 Organisation of the report

The *Post-excavation assessment and updated project design report* is defined in the relevant GLAAS guidance paper (Paper VI) as intended to 'sum up what is already known and what further work will be required to reach the goal of a well-argued presentation of the results of recording and analysis' (VI/1).

The principle underlying the concept of post-excavation assessment and updated project design were established by English Heritage in the *Management of Archaeological Projects 2* (MAP2), (1992). More recent GLAAS guidance has emphasised the need for this stage to be seen as 'brief and transitional', the document acting as a 'gateway' to further analysis and eventual publication (EH, GLAAS, 1999 VI/1).

This report begins with a brief archaeological and historical background to the site and surrounding area. A detailed summary of the original research aims of the project follows, organised chronologically. Results have been amalgamated from all of the fieldwork carried out between 1960 and 1989. The first report on the excavations outlined the results of the investigation by the late Ken Marshall for PEM in 1960–1961 (Wilkinson, 1978). Interim reports were published in 1988 (Greenwood, 1988) and 1989 (Greenwood, 1989), before excavations were complete. A third publication, discussing Uphall Camp's contribution to the landscape of London, came out in 1997 (Greenwood, 1997a), with a final up-date in 2001 (Greenwood, 2001).

The results of the fieldwork follow in section 4; this information is presented using structure abbreviations and numbers+ (eg RH3 = round-house 3) and is again organised chronologically by period. The key for the abbreviations follow:

BD = boundary ditch
ED = enclosure ditch
FP = four poster
MD = miscellaneous ditch
MG = miscellaneous gully
MS = miscellaneous structures
PE = penannular enclosure
RS = rectangular structure
RH = round house

The quantification and assessment (section 5) details the stratigraphic and specialist archive, the finds and the environmental information. Following the

quanitifcation is the discussion of the potential of the site (section 6), which includes both the stratigraphic and specialist information. The degree to which the original research aims can be realised is also discussed, along with the varying significance of the data recovered (section 7).

The Updated Project Design (Sections 8-10) is presented as part of a project overview and forms a separately bound document.

Fig 1 Site location: Uphall Camp

Fig 2 Areas of archaeological investigation from 1960 to 1989

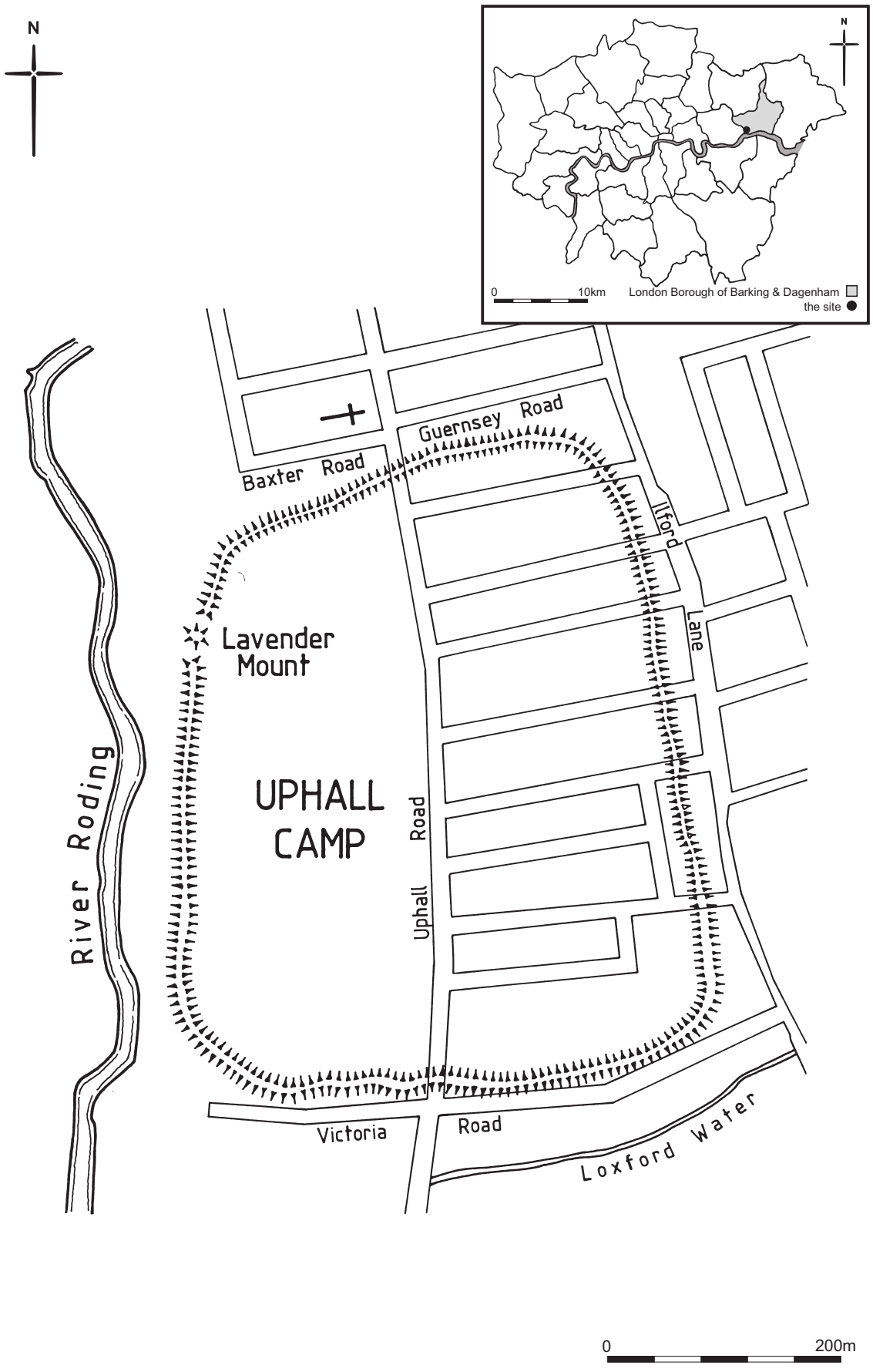

Fig 1 Site location: Uphall Camp

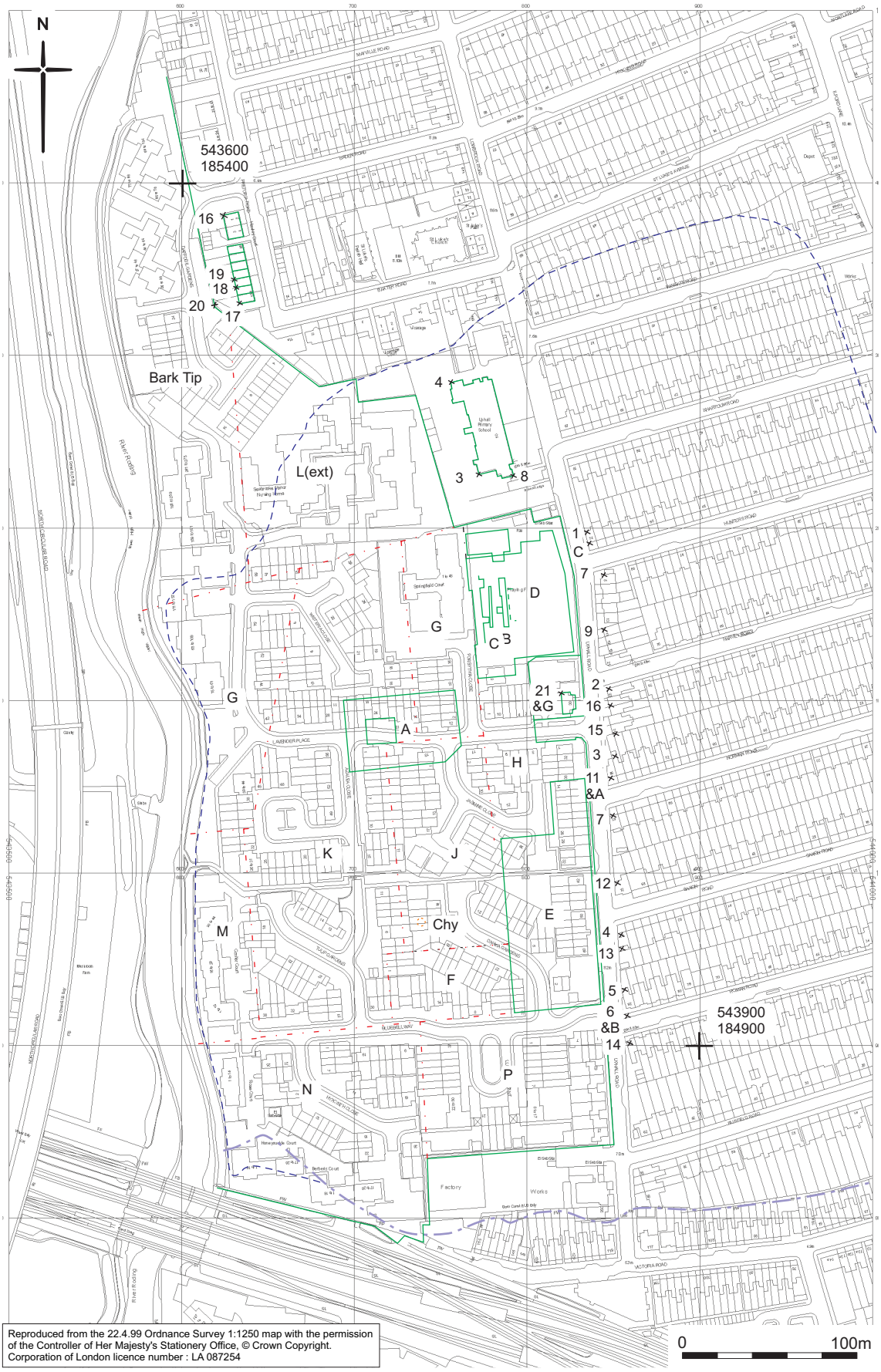

Fig 2 Areas of archaeological investigation from 1960 to 1989

2 Historical and archaeological background

2.1 Geology and Topography

The site lies in the Thames Basin, a broad syncline of chalk filled with Tertiary sands and clays. In this part of London, this series of bedrock consists of London Clay. Above the bedrock lie the Pleistocene (Quaternary) fluvial deposits of the River Thames arranged in gravel terraces. The terrace in this area is the Taplow Gravel (British Geological Survey, 1996). Uphall Camp is situated between the River Roding and one of its tributaries, the Loxford Water, on a well-drained patch of Taplow terrace gravels. It is close to the present marshlands in the area between Barking and Ilford in north-east London, Essex (Fig 3). On the site, the natural terrace gravel survived at approximately 8m OD.

2.2 Prehistoric

Evidence of activity in the Palaeolithic, Mesolithic and Neolithic periods is limited to the occasional recovery of flint tools, although Neolithic sites are known at Great Arnolds Field and Brookway Allotments in Rainham.

Little is known about the Bronze Age in the London area and the surrounding region (Brown 1996). Uphall Camp appears to have been part of a cluster of middle Bronze Age settlement and activity along the lower Roding and adjacent part of the Thames Valley. Sited on well drained gravels, the settlement may relate to the Middle Bronze Age site sited further east along the Loxford Water at Buttsbury Estate (Lawrence et al, 1997) and to the wetland sites with wooden trackways in the adjacent stretch of Thames alluvium (Meddens, 1996). Bronze Age finds have been recovered from Barking Creek and the neighbouring marshes (VCH, Vol. III, 1963).

Current excavations by Pre-Construct Archaeology Ltd at Dagenham Heathway have revealed a possible Late Bronze Age enclosure ditch containing a number of central structures (pers. comm. David Divers). The ditch is sub-square in plan and covers an area approximately 75m by 75m, with an entrance in the north-western corner.

Activity from the Late Bronze Age to the Early Iron Age has been recorded at Warren Farm, Romford and at Upminster, although settlement and structural evidence is relatively sparse (Greenwood, 1997a).

2.3 Roman

Roman sites, settlements and burials are relatively common in the eastern part of Roman London's hinterland and the Lower Thames Valley. There is also increasing evidence for early Roman sites, the majority probably farmsteads, for example at Stratford Market Depot (excavated by the Oxford Archaeological Unit), West Ham, Fairlop and a number of sites on the gravel terraces on each side of the London-Essex border. Some had late Iron Age precursors on the same site or nearby. Some of the field boundary ditches at Uphall Camp contained domestic rubbish, pointing to an early Roman settlement within the circuit of the Iron Age defences. Added to the

evidence from other Roman rural settlements in north-east London, it appears that the gravel terrace zone of the hinterland to the Roman city of London was densely settled.

There are a few Roman sites which appear to have had high status or specialised functions. Wanstead Villa (excavated by West Essex Archaeological Group), Warren Farm near Romford, Havering Park, Moor Hall Farm, Rainham and Hunts Hill are examples. Late Roman sites, again both settlements and burials, are well represented in the area, with sparser evidence perhaps being that of later 2nd–3rd century AD. The status and function of the Roman enclosure at Uphall Camp have yet to be determined, although the deep ditches could be associated with military activity.

2.4 Saxon

Local Saxon sites include Hunts Hill Farm, Upminster and Oliver Close, Leyton (excavations by Newham Museum Service). Barking ('Berica's people') itself is thought to have been Saxon in origin. An abbey was founded at the head of Barking Creek *c.* 666 AD around which the town grew up (VCH, Vol. III, 1963).

2.5 Medieval

The medieval phase of Barking Abbey is well documented in the GLSMR records. A number of medieval wooden structures were recorded at excavations prior to the construction of the Barking Formula One Hotel. These were possibly part of or associated with a medieval bridge over the River Roding (Chew, 1994). William the Conqueror is reputed to have spent some residing in Barking while defences in the City were being repaired (Tasker, 1901).

2.6 Post-medieval

The earthworks at Uphall Camp were recorded by John Noble in *c*1735 and a brief description was possibly made in the later 18th century by Lysons. These provide details of the earthworks before the extensive damage brought about by farming and by works on the River Roding (Crouch 1906, 411; Wilkinson 1978, fn 2, 220). Later surveys in 1868 and at the turn of the 20th century by Walter Crouch (1899, 1906, 1909) chart the gradual erosion of the remaining earthworks. The last prominently surviving section formed the north-west corner. This was destroyed when Howards Chemical Works were built on the western half of the Camp (Howard Archives), but parts were clearly visible in 1926; the last major additions to the factory in that area appear to have been in the early 1960s in the area of Marshall's investigations (Greenwood, 1989).

Uphall Camp is approximately 550m long (north-south) and varies between 400m and 500m in width (east-west), including the defences, covering an area in excess of 24ha, the dimensions emerging from the current work. Preliminary examination of aerial photographs, maps, engineers' records and other documentary sources has enabled the present level of reconstruction of the earthworks (Greenwood, 1989, Fig 1).

2.7 Recent history of the site

Canalisation and other works carried out on the River Roding from the 18th century onwards have largely destroyed the outer of the pair of double defences on the western side. The remainder of Uphall Camp is apparently univallate. The only recorded entrance, apparent on the major surveys, was in the north-west corner where there was a small creek leading off the Roding. It is quite possible that there was a land entrance, but no evidence has been found for it, apart from the interesting alignment of Uphall Road and its predecessors, which effectively bisect the Camp from north to south.

In 1868, parts of the earthworks survived to a height of 3.7m near the entrance (Crouch 1899, 1906, 1909). The good state of preservation of the ramparts in this area may be due to the Lavender Mount built there in the 16th or 17th century (Wilkinson 1978, Greenwood, 1989). The mound took advantage of the terminal of the rampart on the north side of the Camp entrance.

Fig 3 Topographical position of Uphall Camp

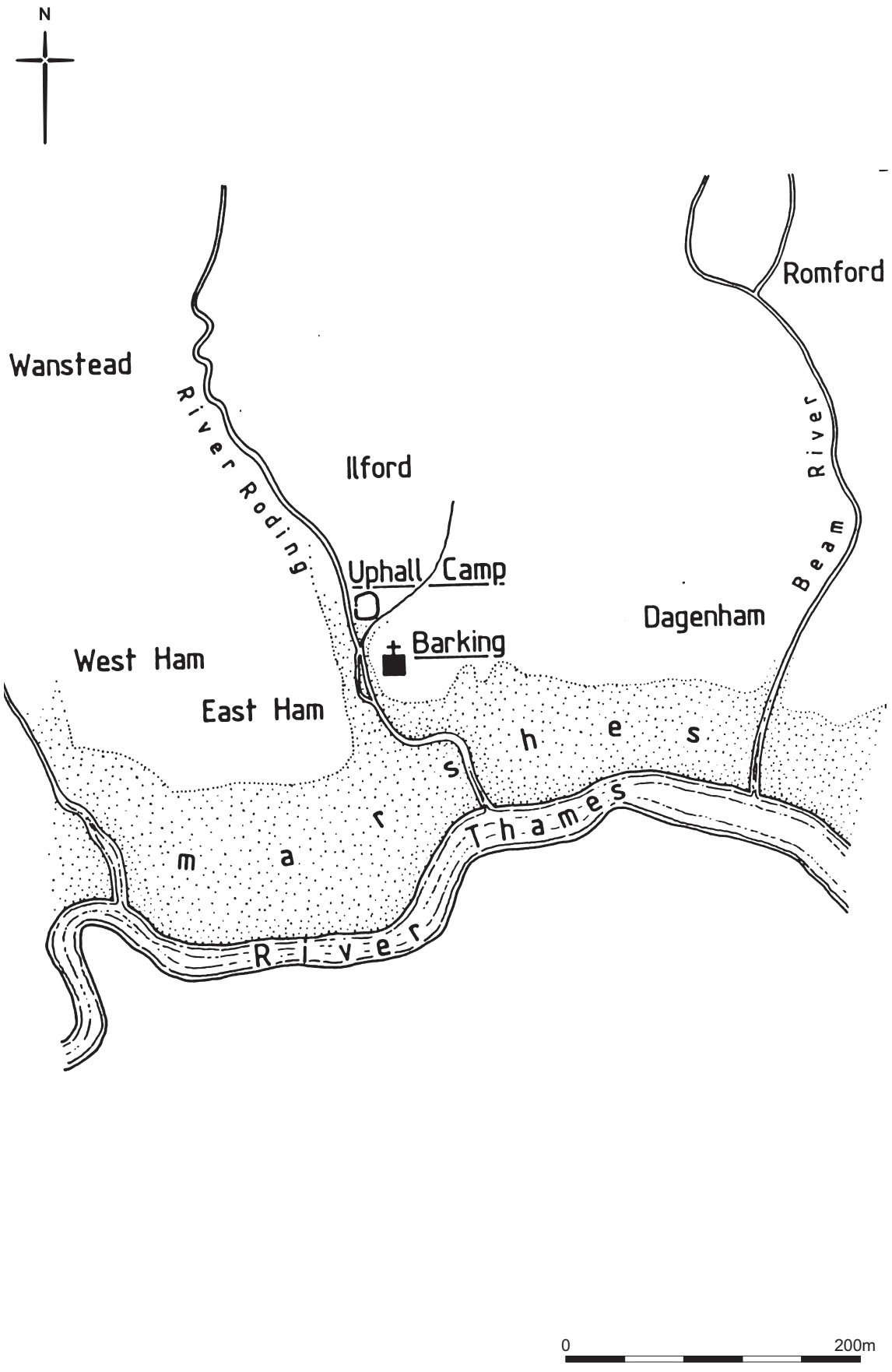

Fig 3 Topographical position of Uphall Camp

3 Original research aims

The results of the Uphall Camp excavations have the potential to significantly add to research on the landscape development on the gravel terraces of the East London area, establishing certain fundamental details of that landscape such as aspects of its architecture and the nature of specific activities seen through resultant archaeological residues. The research will therefore establish a considerable amount of detail of acts of inhabitation for all periods. This will allow broad discussion of cultural themes concerning the development of a settled landscape and farming practises in the estuarine Thames from the 3rd millennium BC to the 17th/18th century.

The following research aims have been crystallised from a number of broad themes which run through the site objectives. These questions have been formulated into a series of larger questions focusing on the most promising (in terms of potential) elements of the site and its datasets.

For the purposes of this assessment the author has regrouped these aims whilst retaining the original numbering used in the project design document (MoLAS 2002).

3.1.1 General

- Aim 1: In co-operation with other relevant agencies to establish limits to a future study area which will address an emerging research agenda for prehistoric and Romano-British activity in East London (English Heritage 1997, 56 (L4) and 60 (MTD11)).
- Aim 5: To collate and present the evidence for the ritual or ceremonial activities, and to propose a framework for their development (English Heritage 1997, 44 (PC3)).
- Aim 11: To recreate landscapes from historical, archaeological, ecological and topographical data, interpret partitioning, alignments and territory and chart the way successive societies used and transformed the landscape. To demonstrate the extent to which natural and man-made features influenced later land use and settlement patterns in the study area, and in the wider regional context (English Heritage 1997, 56 (L4)).

3.1.2 Ceramic and finds

- Aim 2: In co-operation with other agencies to establish a means of ensuring that prehistoric ceramics and lithics recovered from the site can be assessed and referenced in a commonly agreed and accepted manner.
- Aim 3: In co-operation with other agencies to achieve an understanding of the relationship between the pottery fabrics and forms from the Neolithic through to the Iron Age-Roman transition. The absence of a clear chronological framework for the Iron Age in Essex has been a barrier to understanding regional social and economic processes (Bryant 2000, 14). The project team will establish a regional pottery sequence supported, where possible, by absolute dates (Nixon *et al* 2002, 19–20, English Heritage 1997, 55 (L3)).

3.1.3 Palaeolithic and Mesolithic

- Aim 4: To report on the few finds Mesolithic date from the site and to relate them to known activity in the locality.

3.1.4 Bronze Age

- Aim 6: To examine the evidence for the transformation from a ceremonial landscape to an enclosed agrarian landscape with increasingly long-lived patterns of settlement during the late 2nd and 1st millennium BC (Nixon *et al* 2002, 21).
- Aim 7: To explore the further changes taking place in the agricultural landscape during the 1st millennium BC and the appearance of nucleated settlements in the study area in the late 1st millennium BC and to analyse the associated activity traces (Nixon *et al* 2002, 21, English Heritage 1997, 48 (P8)).

3.1.5 Late Iron Age-Roman transition

- Aim 8: To examine and interpret the evidence for the Late Iron Age-Roman transition. In particular to understand the rate, scale and causes of change (Haselgrove et al 2001, English Heritage 1997, 44 (PC4)).

3.1.6 Roman

- Aim 9: To characterise the nature of Roman hinterland occupation, to determine its links with the pre-existing landscape and the wider world, and to explore the nature of activities, chronology and reasons for the changes in land use apparent between the early and later Roman periods (Nixon *et al* 2002, 24–5 and 36–7). To examine critically the notion that a decline in or change of land use occurred in the study area between the middle of the 2nd century AD and the end of the 3rd century AD.

3.1.7 Medieval and post-medieval

- Aim 10: To characterise the post-Roman development of the East London landscape identifying foci of activity in chronological and spatial terms (English Heritage 1997, 44 (PC5), Nixon *et al* 2002, 38–9).

3.2 Summary

The potential of the project has been considered at four levels:

- The potential to reconstruct the architectural settings and types of occupation and activities which occurred within the evolving landscape of what is now East London.
- The potential that constructional and depositional evidence, and environmental evidence have to expand current understanding of the particular research themes, within regional (and national) prehistoric and Roman and later studies.
- The potential that the selected multi-site dataset has to contribute to the regional model of changing landscapes.

- The information that already exists in the form of interim reports, partially completed analysis reports and previous assessment work provides a substantial knowledge-base upon which to build. Significant gaps remain, however, so a targeted selection of tasks needed to assess the potential of the archive have been formulated.

4 Provisional site sequence of material assessed

4.1 Introduction

Understanding of the site sequence has been hampered by several factors which have been highlighted in the specialists reports in Section 5. In addition to this, not all of the material has been appraised due to a lack of funding. This has resulted in a fractured and incomplete assessment of the site archive. In addition to this, the upheaval resulting from the closure of Newham Museum Service in 1997 has created several problems for the archives from large projects and it appears that there remain a number of finds yet to be located.

It has therefore only been possible to identify the possible dates of a limited number of features. This has prompted the recommendation that the assessment process be completed on all finds, environmental and stratigraphic material prior to analysis ahead of publication. The current methodology has resulted in problems in attempting to provisionally identify phases of activity at the site, as it has often not been possible to determine the residuality or intrusiveness of dating evidence. The majority of the potential phasing of the site has therefore been taken from the original assessment (Greenwood, 1997). Detailed descriptions of each structure by Steve Waltho can be found in that document (Greenwood 1997, Vol. I, Appendix III).

The fieldwork at Uphall Camp was undertaken between 1960 and 1989. Although modern truncation was quite severe in the western and southern areas of the site, a considerable amount of archaeological stratigraphy survived in the northern and eastern areas (Areas A–L) and in the Bark Tip (Fig 2), to the north-east.

Initial work on the stratigraphy and finds both during the excavations and immediately afterwards had identified the presence of finds and structures of the following periods: Mesolithic, early Neolithic, middle Bronze Age, late Bronze Age-early Iron Age, middle Iron Age, Roman and medieval (Greenwood, 1988; 1989). Work on the bulk finds and on the primary finds archive with spot-dating and on the stratigraphic archive to produce the provisional matrix has identified further potential structures and further periods and phases within periods. Major additions and refinements include the addition of a possible early Saxon phase and the refining of the Late Bronze Age-early Iron Age dating to the Late Bronze Age.

A later type flint industry is well represented on the site. This has the potential of representing the middle Bronze Age, the Late Bronze Age and the middle Iron Age.

The text and plans included within this section have been drafted prior to full analysis of the site data and are derived from preliminary spot dates, stratigraphic and documentary information. They give only an impression of activity during the defined periods and do not include all of the excavated features.

4.2 Natural and topography

Uphall Camp is situated between the River Roding and one of its tributaries, the Loxford Water, on a well-drained patch of Taplow terrace gravels. It is close to the

present marshlands in the area between Barking and Ilford in north-east London, Essex. On site, the natural terrace gravel survived at approximately 8m OD.

4.3 Mesolithic

Stray Mesolithic flintwork, such as a narrow-blade core, were recognised at an early stage. Further work on the finds archive has identified a few more pieces of work flint belonging to this phase. There is no evidence for settlement of this period and the finds are interpreted as the result of Mesolithic activity alongside an earlier river Roding and Thameside marshes.

4.4 Early Neolithic

The evidence for this period is confined to a few flint implements, including a fine leaf-shaped arrowhead. It is possible that some of the less featureless flint-tempered sherds belong to this phase, but this seems unlikely, given the absence of any diagnostic early Neolithic pottery. The evidence again points to activity, such as hunting in this part of the Roding valley. There is no obvious late Neolithic evidence from the site, although a few sherds could be earlier than the middle Bronze Age.

4.5 Middle Bronze Age

There is a scatter of middle Bronze Age pottery from Areas A, E and especially D: most of it is redeposited in later features. Work on the finds archive identified more material of this phase and a small number of cut features, notably a gully MG3 (Fig 4) and possibly a pit. The distribution of pottery and probably a small number of flint implements, both stratified and those in the subsoil, points especially to a middle Bronze Age settlement zone fronting Uphall Road. The pottery is the Deverel-Rimbury type found along the lower Thames valley and southern Britain (Ellison's Lower Thames Group: Needham 1987; Brown 1996). Further work on this assemblage should identify more material and possible features.

Middle Bronze Age settlements are rare in north-east London, as elsewhere in London. Further activity, probably related to the settlement here, is known in a less well-drained area alongside the Loxford Water at the Buttsbury Estate (Lawrence et al, 1997).

4.6 Late Bronze Age (figs)

In 1989, an l-shaped ditch, MD12, was identified as part of possible a Late Bronze Age-early Iron Age enclosure (Fig 4). Further work has identified a rectangular structure, RS3, possibly dating to the Late Bronze Age, as well as a pit and possibly other features. There are also two undated, post-ring structures in Area E. There are indications that the Middle Bronze Age and the Late Bronze Age settlement and activity areas are mutually exclusive.

4.7 Middle Iron Age

The Middle Iron Age settlement is concentrated in the part of the site fronting Uphall Road in Areas A, B/C and particularly in Area D and E (Fig 5). There is an area

behind the defences on the western side of the site which seems largely devoid of middle Iron Age features, possibly indicating some sort of 'military way'.

There are clear signs of organised planning in the interior of the camp; nine round-buildings, eight of which are most probably houses, have been identified (RH9 was later re-categorised as MG9). These range in size from 7.20m to 15m in diameter. All but the smallest have entrances facing east. The latter has been interpreted as some sort of 'barn', given its association with large quantities of charred grain. Most of the round-houses in Area D are slightly smaller (RH1, 2, 3 and 10). This may indicate a difference in phase, function and/or status. There is also re-building and at least one secondary phase of occupation, as can be seen between RH1 and RH2.

Associated with the round-houses are two penannular enclosures (PE1 and PE2) (fig 5), both with east-facing entrances and six four-posted structures (FP1–6), interpreted as granaries. There are at least four rectangular, sleeper-beam and post-fast structures, some of which have been interpreted as sheds or working areas. There is insufficient evidence at present to identify any of them certainly as shrines, but in common with 'shrines' elsewhere, some have little or no finds (Cunliffe 1993). Other structures include gullies – MG5 attached to PE2 and MG7 attached to RH7 (fig 5) and others in isolation. There are also numerous pits and post-holes, either isolated or not yet obviously part of structures.

Previous work undertaken on the archive suggests that these various structures, especially the round-buildings and some of the gullies, are associated with different activities, such as metal-working (Greenwood, 1997). Specialist assessments of the finds have revealed more extensive metalworking evidence than previously thought, with both bronze and iron and including crucibles, an iron file, punches and a mould (see Section 5.11). Charred plant remains are also abundant in Area E, associated with the four-poster structures, round-building RH5, round-house RH7 and gully MG5, in particular (see Section 5.9).

4.8 Roman

Roman activity on the site is possibly represented by a number of ditches recorded in the watching brief, so not traced to their full extent, a rectangular enclosure (ED1) and its associated internal ditches (ED3), two possible Roman burials and dumps of Roman pottery in the well-silted up Iron Age Camp ditches, MD1 (Fig 6). The two possible burial groups stem from the recovery of flagons, samian and other vessels in 1906 (Crouch, 1906) and the single flagon, effectively complete, excavated in 1989. These finds hint at least one special activity on the site.

It is possible likely that there are several Roman phases beginning in mid-late 1st century AD and continuing into the 4th century at least. The rectangular enclosure, ED1 (77.5m x 45m) contained little material, although was the location of the only coin of Severus Alexander (AD 222–235) in north-east London. There was a paucity of finds, however, within the quite deep and extensively excavated ditch fills. It is likely that within its life and filling in period, *c.* 2nd–4th centuries AD, there may have been a policy or control that banned rubbish dumping or maintained a cleaning out programme. There is a great contrast in the quantity of finds from this ditch and others on the site and the dumps of Roman material in the partly filled Iron Age Camp ditches along the western edge of the site.

4.9 Early Saxon

A period not securely identified is the early Saxon, potentially located on the western, Roding side of the site. There are problems which may be resolved with further work in separating some of the middle Iron Age pottery from that attributable to the early Saxon period. This material, however, is concentrated in one general area, the grass-tempered fabrics are unparalleled in other local middle Iron Age assemblages, including those from the round-house gullies of Uphall Camp and find similarities with other early Saxon sites, such as Mucking (Hamerow 1993), Hunts Hill Farm at Upminster and Oliver Close at Leyton (Greenwood, 1996). An amount of this material occurs in the material excavated in the 1960s by PEM in the north-west corner of the site and in features investigated in the watching brief in 1989.

4.10 Medieval

There appears to be a lengthy period of medieval activity on the site, beginning in the Saxo-Norman period. This may relate to the farm, first recorded in 1535 (VCH 1966) at the northern end of the site and demolished in the 19th and early 20th century. None of the material is plentiful and the majority is from two boundary ditches (BD3 and BD4, Fig 7), suggesting that it is from peripheral activity and perhaps muck-spreading from Uphall farm or another farm nearby.

4.11 Post-Medieval

A number of ditches appear to span the medieval and the post-medieval period, such as the boundary ditches (Fig 7). The site was used throughout the post-medieval period. The last farm building to survive, a large barn, was demolished during the late stages of the expansion of Howards Chemical Works. Further documentary research might clarify the history of the site until it becomes part of Howards and then Laportes, before finally being redeveloped in the 1980s and 1990s.

Documentary and photographic evidence up until the late 1960s clearly shows the Lavender Mount and its relationship with the Iron Age earthworks. Excavations in 1960–61 revealed that the mound is clearly post-medieval (Wilkinson 1978). Suggested functions included a beacon mound. Given its elevated position, it may have been a windmill-mound. The timber-structure revealed in the Roding silts under the Bark Tip during the 1989 watching brief is dated by the style of carpentry (Barbara Colla, pers. comm.) to the 17th–18th century. It may have been a jetty in the inlet.

Photographic evidence also gives a good impression of the 18th–19th century farm buildings. Factory plans and records showed the growing works and describe the processes carried out on the site.

Fig 4 Features attributed to the Bronze Age (Middle and Late)

Fig 5 Features attributed to the Middle Iron Age

Fig 6 Features attributed to the Roman period

Fig 7 Features attributed to the medieval and post-medieval periods

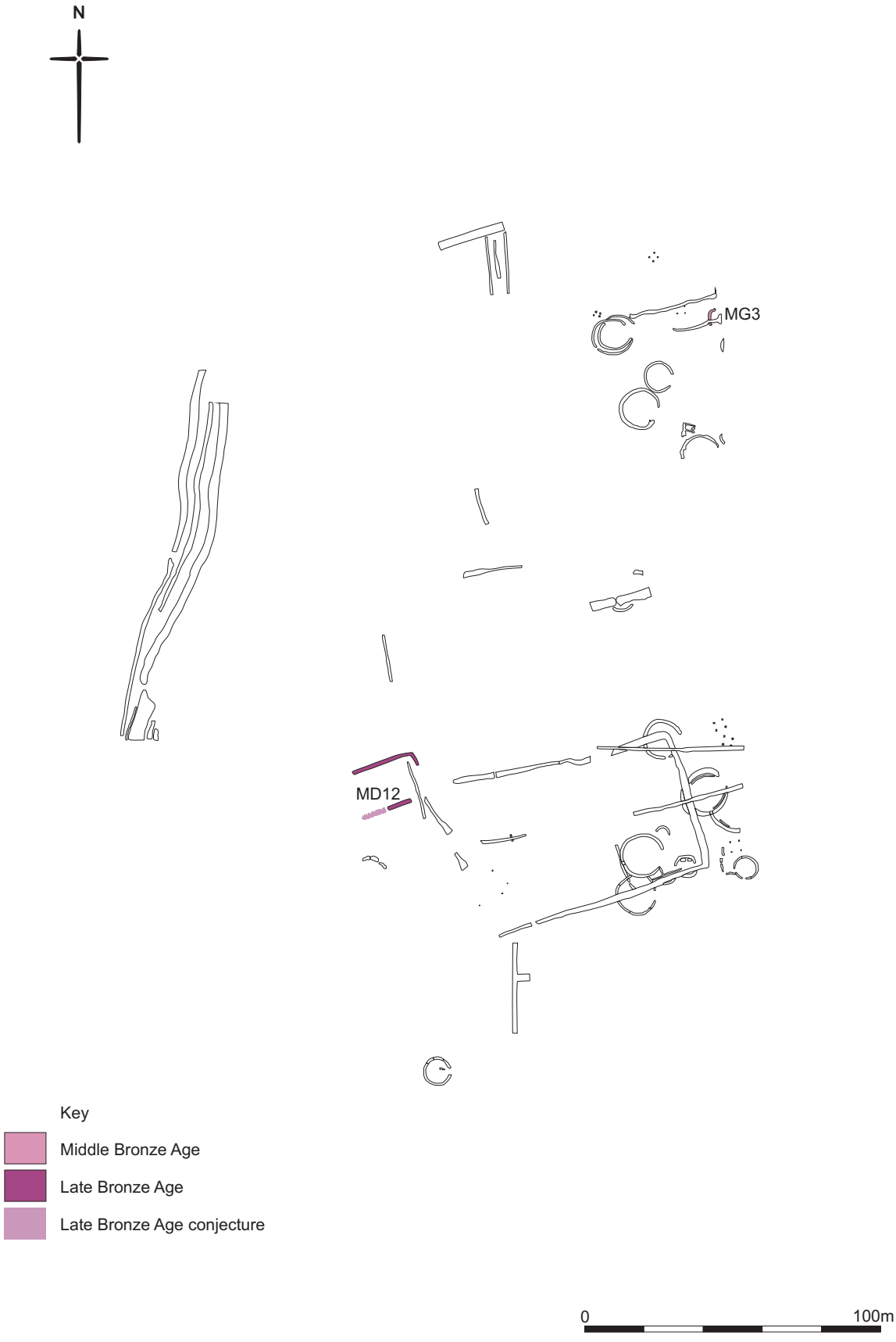

Fig 4 Features attributed to the Bronze Age (Middle and Late)

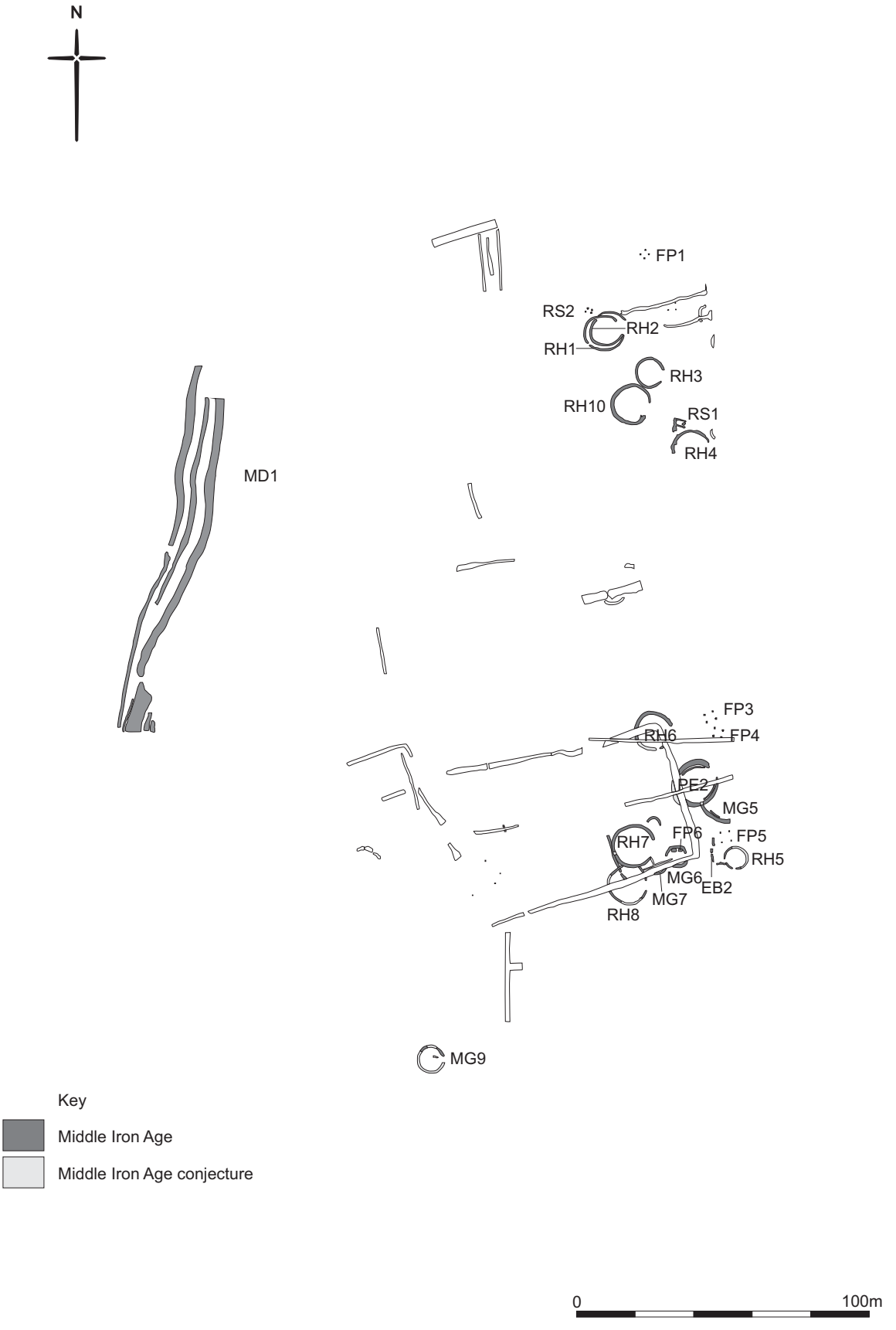

Fig 5 Features attributed to the Middle Iron Age

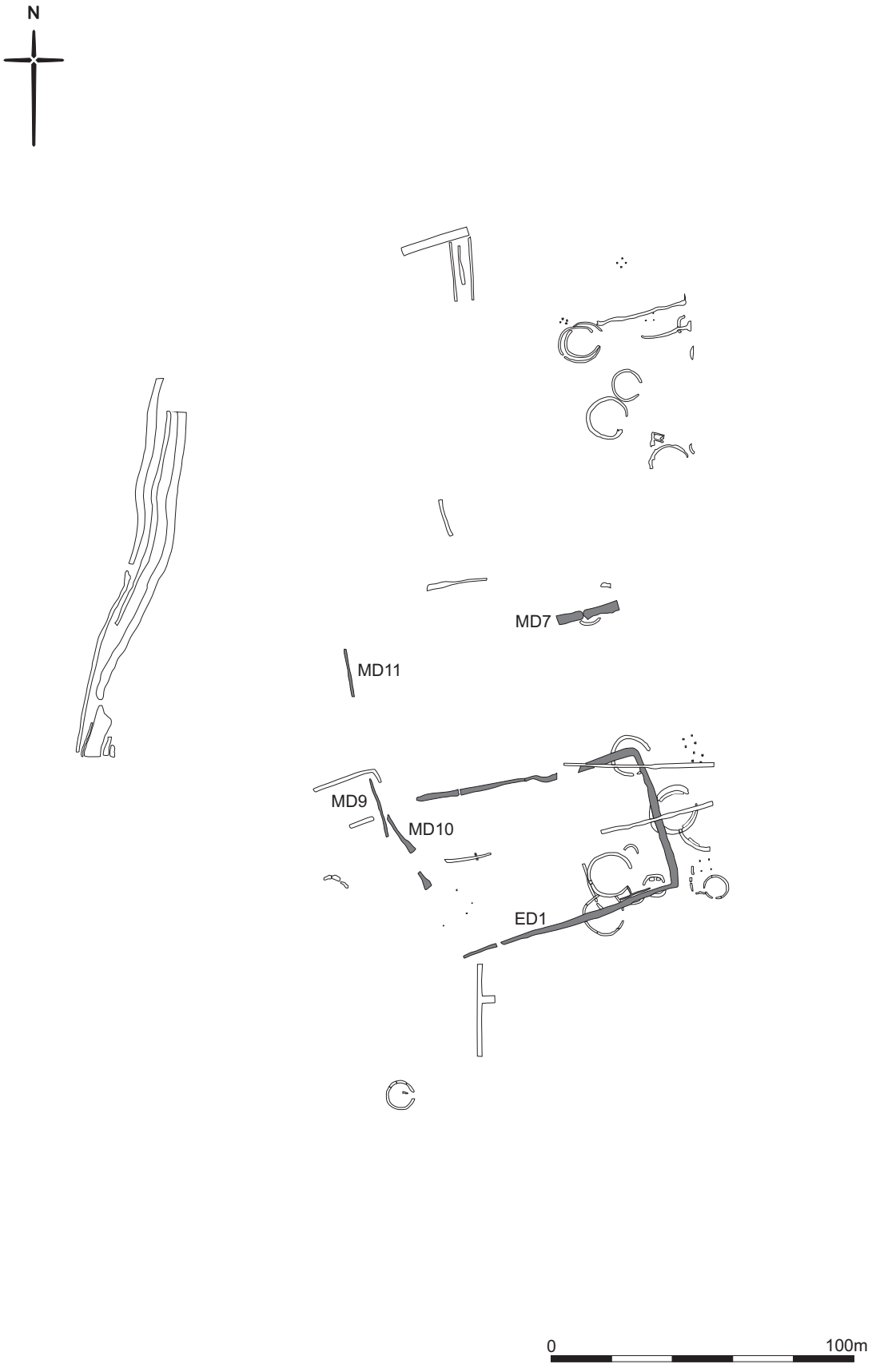

Fig 6 Features attributed to the Roman period

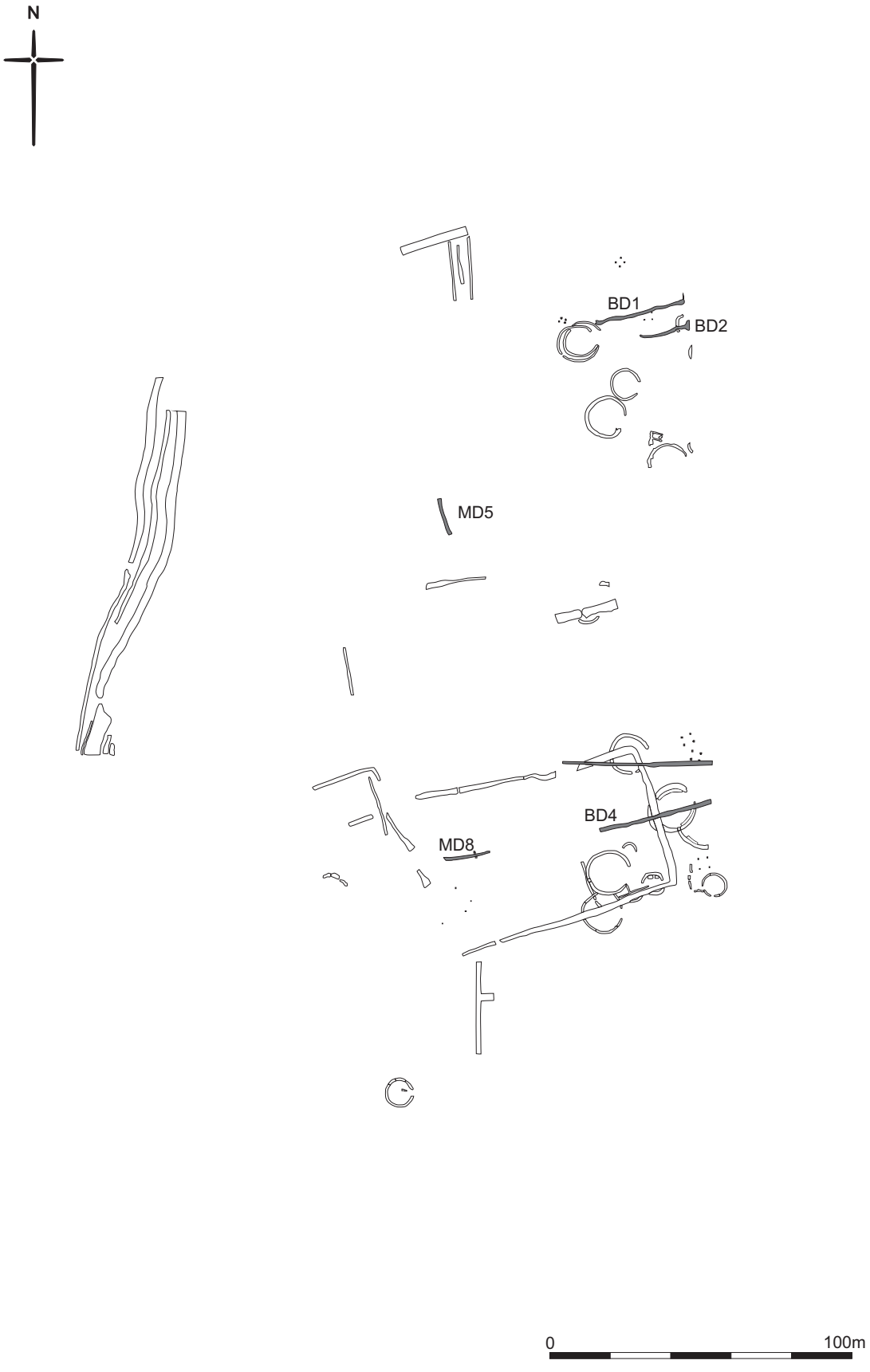

Fig 7 Features attributed to the medieval and post-medieval periods

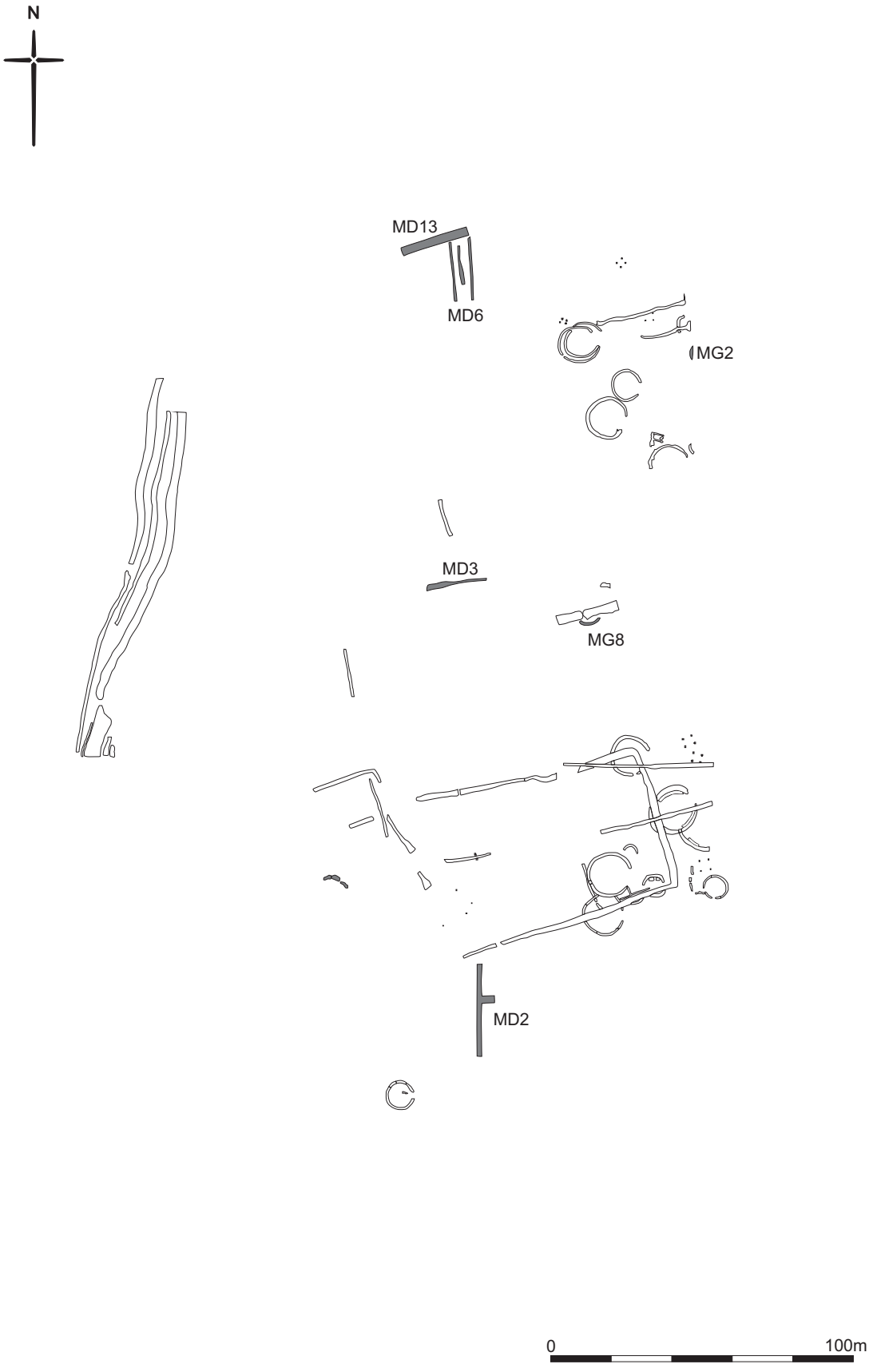

Fig 8 Undated features

Fig 9 Roundhouse 3 looking west

Fig 10 Roundhouse 5, enclosure ditch 2, gully 5 and the south-eastern corner of Enclosure Ditch 1; looking north-west

5 Quantification and assessment

5.1 Post-excavation review

Completed tasks
This section lists the tasks completed so far prior to authorship of the post excavation assessment.

- Context sheets checked
- Context information entered into ORACLE database
- Site context matrix compiled
- Roughly 1.5% of contexts digitised in AutoCAD from 1:500 multi-context plans (although all principal structures included)
- Arcview GIS project generated from digitised 1.5% of contexts
- Linkage of ORACLE spot-dating to Arcview project
- Integration of MoL and other specialist reports
- Photographs indexed

5.2 Provisional post-assessment task list

Below is a list of some of the main tasks that need to be addressed at the next stage of analysis, leading to publication.

- Digitising in AutoCAD of principal contexts from hand drawn 1:20 plans
- Arcview GIS project generated of all digitised contexts
- Sub-group annotation of context matrices
- Sub-group matrices compiled
- Apply dating evidence to sub-group matrices
- Establish group structure and compile group descriptive text; compile group matrices
- Map subgroup to group data into ORACLE database
- Establish landuse sequence and diagrams and compile landuse descriptive text
- Map group to landuse data into ORACLE database
- Establish periods; map period data into ORACLE database
- Establish period and/or phase driven plans using Arcview GIS linked with ORACLE completed dataset
- Principal author reading of MoL and other specialist publication reports
- Assessment of proximate sites data
- Establish final period and/or phase driven plans using Arcview GIS linked with ORACLE completed dataset
- Authorship of stratigraphic period text
- Finds review to finalize illustration and photography lists
- Full integration of all MoL and other specialist reports into stratigraphic text
- Prepare and submit stratigraphic, finds and environmental material to archive

Type	Description	Quantity	Notes
Contexts	Excavation	7597	Area A (114) Area B (328) Area C (171) Area D (4659) Area E (2096) Area F (11) Area G (6) Area H (56) Area J (58) Area K (31) Area L (69)
Plans	Multi-context A2, 1:20	Fair copy: 69 sheets Inked copy: 43 sheets	These from Areas D and E. There are also numerous multi-context plans undertaken during the excavation from Areas A, B, C, D and E
Sections	1:10	Fair copy: 19 sheets	There are also numerous sections undertaken during the excavation from Areas B, C, D and E
Miscella-neous		10 boxes plus 4 boxes sample records	Notebooks, personnel information, correspondence, area summaries, historical background articles, publication articles, exhibition posters, site diaries etc
Matrices		Yes	Paper copies
Photograp hs			4 boxes of monochrome photograph cards 1 box of press photographs
Colour slides	Slides in lever arch files	c 2040	
B/W slides	Slides in lever arch files	c 3480	

Table 1: Stratigraphic archive

5.3 Site archive and assessment: finds and environmental

Prehistoric pottery	1355 sherds. Total 8.778kg
Quantity of LIA/Roman pottery	1721 sherds, 15626g, No. contexts 60
Iron Age/Saxon pottery	31 sherds
Medieval pottery	151+ sherds. 139 ENV. 752gm
Post-medieval pottery	220 sherds. 206 ENV. 1814 gm
Building Material	9 boxes recorded (although only 4 in part) out of 22. All the building material retained after assessment.
Accessioned finds	92
Worked flint	271: 3.320kg
Animal Bone	This site produced only 0.422 kg, approximately 16 fragments, of moderately well-preserved bone mainly in the 25-75mm size range.

Table 2: Finds and environmental archive general summary for ILF-UC83/87

Iron Age/Saxon pottery	1 box, some probably Iron Age1	c.60 sherds	Not counted	Not weighed
Medieval pottery		6 sherds	6 ENV	31 gm

Table 3: Finds and environmental archive general summary for HOW60/61

5.4 The prehistoric pottery

Charlotte Thompson

Prehistoric pottery

Summary/Introduction
Approximately thirty percent of this site was assessed, the dataset is incomplete and therefore any conclusions drawn are tentative. The site assemblage was recorded according to the guidelines set out by the Prehistoric Ceramics Research Group (PCRG 1995). The sherds were examined with a x20 binocular microscope and recorded by fabric form and decoration where appropriate. The pottery was also quantified by sherd count and weight.

Fabrics
All of the sites in the East London Gravels project have been recorded using a single typology that has been created during the assessment phase of the project. This typology can be found in the global assessment for prehistoric pottery.

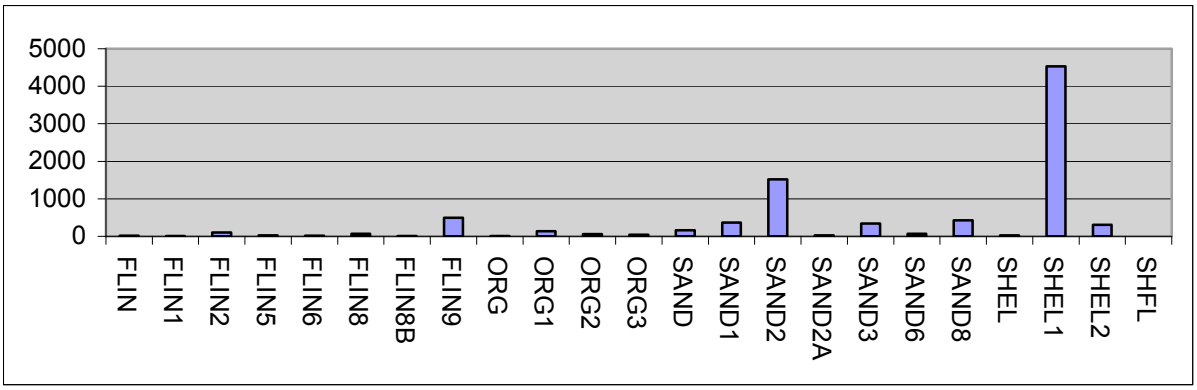

Table 4: Assessed prehistoric pottery fabrics - quantification by weight

Shell-tempered fabric, particularly SHEL1, dominate the assemblage: 55% of the assemblage by weight, and 47% by sherd count. The main bulk of these sherds (over 400) comes from [3206] and [3207] in Area D (PE1), and are most likely to be from the same large storage vessel. Sand-tempered or organic sherds are the next most common fabric, 36% by weight and 30% by sherd count.

The high percentage of FLIN9 by sherd count (18%) merely reflects the fragmentary nature of the fabric itself as it makes up just 6% of the assemblage by weight. Overall, the relatively small proportion of flint-tempered sherds reflects the

fact that flint temper becomes less common throughout the Iron Age, as other fabrics are introduced in this period (Brown 1995 ref).

Although a small amount, it is of note that seven sherds (less than 1% by sherd count and weight) are SAND6, a heavily glauconitic tempered fabric. This is associated with Middle Iron Age and is similar to Fabric A at Little Waltham (Drury 1978, 56).

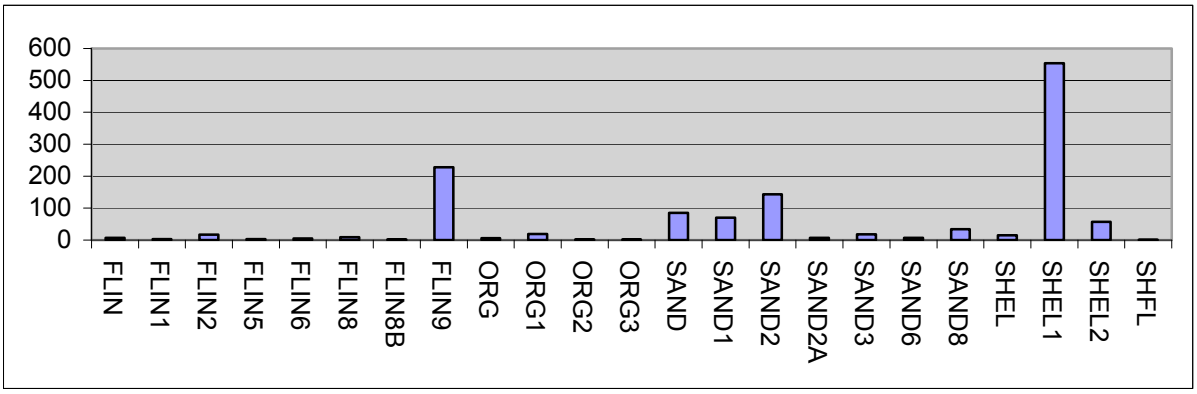

Table 5: Assessed prehistoric pottery fabrics – quantification by sherd count

Forms and decoration

There is a relatively large example of a Deverel-Rimbury style sherd with an applied cordon in [2157] (Area D). It is one of the few examples of Deverel-Rimbury style urn in the East London Gravels sites.

There are some forms that can be paralleled at Little Waltham period II (Drury 1978). Form 4, a small jar with a vertical rim that is usually clearly demarcated from the gently curving body, appears in [303] (RH3, Area D), and form 5, a small vessel with a pointed everted rim and a hemispherical body, appears in [3207]. There are a few examples of form 11, a jar or bowl with a slack 'S' profile and an everted rim, which appear in [303], [661] (both RH3) and [3207] (PE1), and form 13, everted-rim bowls with a footring, appear in [3318] (Area D) and [7783] (PE2: Area E). In total nine rims of vessels that can be paralleled at Little Waltham are present. Carbon dates for material from period II at Little Waltham are late to mid 3rd Century BC, an early Middle Iron Age date (Drury 1977, 126-127). No carbonised residues suitable for analysis found so far at this site.

Three decorated sherds from [7776] (PE2, Area E), at least two of which are from the same vessel, are decorated with grooved or burnished decoration such as in-filled triangles or rectangles and a horizontal band of diagonal lines. Such decoration is common in both the Early and Middle Iron Age (Cunliffe 1991, 554-590), and these sherds are perhaps from a jar.

Discussion

The small proportion of flint-tempered fabric indicates an Iron Age date for the majority of the site. This, combined with the parallels for forms in phase II of Little Waltham, suggest a Middle Iron Age date for the majority of the site assemblage.

However, it is important to bear in mind that only 30% of this assemblage has been assessed and so these conclusions are tentative.

As the site has been sub-grouped, certain features can be phased. The majority of the material dates to the Middle Iron Age such as ditches from contexts [304], [662] (both RH3), [3208] (PE1) and [3173], which has also got six residual Late Iron Age or Transitional pottery in it. Contexts [1793] and [3319] (post-holes) and [9545–7], a well, are also Middle Iron Age.

There are a number of Early to Middle Iron Age features such as [766] (post-hole) and ditches [676] and [3488] (both PE1) and [7815] (PE2). Context [8073], an external dump, also dates to this period. Another ditch, [8860] (H8, Area E), is Early Iron Age in date, with some residual Middle to Late Bronze Age material also present, and there is some Bronze Age activity represented by context [2156–9], an external dump, which has a large piece of a Deverel-Rimbury style urn with an applied cordon on the exterior as well as some fragmentary material from the Late Bronze Age and Iron Age. There are also sherds dating to the Late Bronze Age from ditch [5324] (H1), and a Middle Bronze Age posthole, [5393] (both Area D).

It is worth noting that although 1355 sherds were assessed for this site, 30% of the sherds are likely to belong to the same large SHEL1 storage vessel. This site is geographically closer to the sites in the Lower Thames Valley and on the western terraces, whereas the other sites in the East London Gravels project are further east. Even though the dataset is far from complete, it is most likely that the differences in the relative proportions of fabrics present at this site reflect the later date of the site assemblage, rather than its geographic location.

5.5 The Late Iron Age and Roman pottery

Joyce Compton

Introduction and Methodology

Pottery from a total of 321 contexts was examined, only sixty of which contained pottery of Late Iron Age and Roman date. A number of contexts with LIA/Roman pottery also contained earlier, probably Middle Iron Age, pottery. More than 80% of the pottery present dates to the Middle Iron Age or earlier. Medieval, post-medieval and modern pottery was also present in small amounts, mainly from context [2], a modern sub-soil present across the entire site.

Previous work has been undertaken on the pottery, but information regarding the full extent of this was not available. Many of the sherds had been individually bagged, in some cases sherds from the same vessel, and these were sometimes placed in different boxes.

The Late Iron Age and Roman pottery was recorded by form and fabric onto Museum of London pottery proforma sheets adapted for the project. Fabrics were recorded using the ECC FAU fabric series, and forms recorded using the type series devised for Chelmsford (Going 1987, 13-54) and that for *Camulodunum* (Hawkes and Hull 1947, 215-75). Reference was also made to the Southwark type series (Marsh and Tyers 1978) where appropriate. Once recording was completed, the data were entered onto an 'embedded' spreadsheet supplied by the Museum of London. Full assessment of the pottery will be made once stratigraphic information is available.

Factual Data

A total of 1721 sherds, weighing 15626g, of LIA/Roman pottery were recorded. At least 65% (1090 sherds, 10164g) was recovered from a single context [9655] (Area L), representing the fill of a ditch. In addition to this very large group, there are two large (100+ sherds) and two medium-sized groups (30-100 sherds), three of which appear to belong to the same ditch group as that containing fill [9655] (part of MD1: Area L). If this is the case, then more than 75% of the LIA/Roman pottery recovered was found in the large boundary ditches to the west of the site.

The remaining 55 contexts comprise small groups of 30 sherds or less, with 43 of these contexts each containing less than five sherds. The pottery from 49 contexts cannot be closely dated, and that from a further 6 contexts is tentatively dated by just one or two pieces.

Five contexts are more reliably dated by the presence of a number of fabrics and forms. Context [9655] (MD1) contained a wide range of 1st- and 2nd-century pottery types, providing an AD100-160 date, although there is a large amount of residual material. Several later pieces are also present, and this, linked with the fragmentary nature of the assemblage, may indicate later deposition. Although this is a large group, the context is not worth further recording by EVE (Estimated Vessel Equivalence). Context [9692] (part of MD1: Area L) contained a similar range of fabrics and forms and thus has also been dated AD100-160. Contexts [9657] and [9659] (both part of MD1: Area L) have been dated AD40-100, and context [9511] (MD3: Area G) to AD70-125. There are no securely dated late Roman contexts and few pieces present which are later in date than the 2nd century. The latest form identified is a B6 flanged dish in Alice Holt ware, which would be a late 4th-century piece in Essex. The London date for these vessels may be significantly different and the 4th-century date assigned to the context may thus be erroneous.

Assessment of Results

Most of the LIA/Roman pottery present post-dates the Roman conquest; there is very little which could be assigned to the Late Iron Age. Much of the grog-tempered and shell-tempered wares are recorded from contexts of a later date, or occur as isolated sherds. There is a single occurrence of tentatively-identified imported fineware, *terra nigra*, in context [9655], and this is a *Cam* 16 platter normally dated AD40-85. During the Roman period, Uphall Camp seems to have been within the sphere of London's influence. Many of the forms present are Marsh and Tyers types, especially those in shell-tempered and Highgate grey wares.

Shell-tempered ware is a feature of both MIA and LIA/Roman assemblages. This caused difficulties in recording, unless the sherds were associated with other datable pottery. Since the bulk of the pottery is attributable to the Middle Iron Age, most of the shell-tempered ware was left unrecorded for the attention of the prehistoric pottery specialist. Shell-tempered ware was recorded when associated with LIA/Roman pottery, for instance in context [9655], or when the forms were recognisably not MIA.

First impressions suggest that the settlement is predominantly MIA, and there is no continuity of occupation into the Late Iron Age. Any LIA pottery is likely to have been deposited during the Roman period along with the rest of the assemblage. There is slight evidence for late 1st century activity, but most of the pottery seems to be deposited in a single feature, the ditch containing context [9655], dated to the first half of the 2nd century. There are few, if any, contexts which could be solely late Roman in date.

The nature of the presumed Roman occupation is hard to define at present. Stratigraphic information may help shed light on whether the Roman pottery assemblage is meaningful in any way.

Assessment work outstanding
Three vessels currently on display have not been examined or recorded, although one is likely to be MIA, rather than later. Details are as follows:
Flagon in ?VRW From context [9644] (Area K)
?Jar in HGG from context [9655] (Area L)
MIA vessel from context [3214] (Area D)

5.6 The pottery

Lyn Blackmore

Saxon pottery (c 400–1000)

Methodology
The finds from HOW60 and HOW61 were not included in the list of sites drawn up for the project design, but two boxes of pottery from them were examined as they were said to contain Saxon pottery. The finds had been scanned and listed on sheets that are inside each box, each sherd having a unique number: <1>, <2> etc. It is not clear if these refer to trenches/features or if the sherds were simply numbered in a running sequence, but the latter seems likely. All of the pottery was examined macroscopically and using a binocular microscope (x 20) where appropriate. The material had been poorly washed, and some was washed again in order to get a better impression of the fabrics. Some of the material was recorded on paper using standard Museum of London codes for fabrics, forms and decoration. The numerical data comprises sherd count, estimated number of vessels and weight. The data was not entered onto the computer, partly because the site code was not accepted, and partly because discussion with prehistoric pottery specialists suggested that the sherds are of Iron Age, rather than Saxon date.

Fabrics
Some sherds are chaff-tempered and are likely to be of Saxon date (eg <13>, <15>, <22>, but a range of sandy/brickearth fabrics are also present that are less easy to date with confidence. These could well be Iron Age, as several more definite Iron Age sherds and other finds such as loomweights are present which indicate prehistoric activity on the site.

Forms
The forms include a number of body sherds and a few rims from small jars/bowls that could equally be of Iron Age or Saxon date.

Distribution
All the potential Saxon material was confined to the area of the ‘Lavender Mount’ near the bank of Barking Creek.

Dating

Dating is problematic at this stage; if the material is taken to be Saxon, the mix of sandy and chaff-tempered wares, and lack of sandstone-tempered types, would point to a date after 550 AD for the group, and it could well date to the 7th century. The site is sufficiently close to a centre of Saxon activity to anticipate Ipswich wares had the activity dated to the 8th or 9th century.

Medieval pottery (c 1000–1500)
In addition to the finds from the main excavation, six medieval sherds were recovered from HOW60/61, cuttings 1, 3, 4 (<81>) and 6 (<87> and <88>); these were recorded but the data has not been computerised.

Note: A problem within the Oracle database means that it as not been possible to enter data for [5303] (Area D) and [8780] (Area E) (total six medieval sherds). Bearing this in mind, together with that fact that one context is not included in the totals quoted here ([754]/[755]: Area D), the total sherds compare well with that calculated by the PEM (*c* 160 sherds; P. Greenwood pers comm).

Fabrics
Sixteen fabrics were identified which comprise a mix of types that are found in central London, and others that were made for the local market. Shell-tempered and coarse sandy wares typical of the 12th century are limited to four sherds, and the dominant group comprises oxidised sandy wares from the Mill Green area (MG, MG COAR, 40 and 36 sherds respectively). Also present are smaller amounts of similar pottery from Harlow (HARM, 29 sherds), and from unknown sources in Essex (SOWX, 27 sherds). The other 12th- to 15th-century types comprise eight sherds of London-type ware (LCALC, LOND), three of coarse Surrey-Hampshire border ware (CBW), one sherd of Cheam whiteware (CHEA) and one of late medieval Hertfordshire glazed ware (LMHG). In addition there are a few 11th- to 12th-century shell-tempered sherds (EMSSX, SSWX). The finds from HOW60/61 comprise six sherds of EMSHX, SSWX and MG.

Forms
The medieval sherds are not large, but most could be identified as either a jug or a jar; these groups are almost equally represented (28 and 31 sherds respectively). Fourteen sherds were so small that they could not be assigned to a form. Some of the jugs from Harlow and Mill Green have a white slip and a green glaze, while others have slip-painted decoration. The Mill Green jugs are combed, while one has a cabled cordon beneath the rim ([755]: Area D: retrieved from excavation slot). The London-type wares include jugs with decoration in the Rouen and North French styles. One sherd of CBW is from a large jug or bunghole jug with vertical stripes of red slip on the shoulder ([755]).

Distribution
As shown in Table 6, the bulk of the recorded pottery is from Area E, with a smaller amount from Area D. The amounts from the other areas are negligible. In addition to the finds from the main excavation there are also four sherds from HOW60/61, cutting 4 (<81>) and 6 (<87> and <88>). While the number of contexts is low, this does not reflect the number of finds bags, as the pottery was found in various different grids and or at different co-ordinates. The largest concentrations are in contexts [2] and [2126] (Area D), all residual; other than this most groups have less than six sherds.

Area	Contexts	Sherds	ENV	Weight
Area A	1	1	1	1
Area B	3 (2 resid?)	5	5	33
Area *C*	1	3	2	16
Area D	14 (5 resid?)	54	52	313
Area E	17 (1 resid?)	91	82	365
Area F	1	1	1	1
Area H	2	3	3	21
Area J	0	0	0	0
Area L	1	1	1	17
Total	38+	159	147	767

Table 6: The distribution of the medieval pottery (excl HOW60/61)

Dating
The pottery is slightly later in date than that found at Hunts Hill, and appears to span the 13th and 14th centuries. The latest diagnostic fabric types are the coarse Surrey-Hampshire border ware and Cheam whiteware, which were found in Areas C and D. Some of the pottery appears to be residual, but this needs to be verified.

Post-medieval (c 1500–1900)
In addition to the finds from the main excavation, 89 sherds were recovered from HOW60/61, cuttings 1, 2 [2], 3, 3 [2], and 4 (<78>, <80> and <84>); these were recorded but the data has not been computerised. The total sherds located is rather less than that noted by the PEM (c 360 sherds; P. Greenwood pers comm.); the reason for this discrepancy is unclear unless some boxes have been overlooked.

Fabrics
In all 25 ware types were identified, with a number of sub-types based on decoration, which range from later 16th to 19th century in date. Redwares are the most common group (PMBL, PMIR, PMR, PMRE), with 81 sherds, but the various 18th and 19th-century factory made wares are well represented. Other non-local wares comprise Surrey-Hampshire border wares (both redwares and whitewares) and slipwares from Staffordshire and Sunderland, while imports are limited to Chinese porcelain and Westerwald stoneware. The finds from HOW60/61 comprise Metropolitan slipware, small sherds of tin-glazed ware and pearl ware, as well as post-medieval redwares.

Forms
Most sherds are small, the maximum weight being 70gm; over 30 sherds weigh less than 10gm, but all sherds could be assigned to a basic form type. The bulk of the collection derives from tablewares and ornamental pieces such as an 18th-century Chinese porcelain bottle or flask, part of a possible vase (CREA PNTD) and two figurines. The latter comprises the legs of a reclining male figure in Parian ware ([2]) and another in REFW from [754]/[763] (Area D: retrieved from excavation slot). The finds from HOW60/61 include part of a Metropolitan slipware dish, and 71 sherds from a flowerpot.

Distribution

The largest concentrations are in [2], which covered all parts of the site, and [2156] from Area D (18th/19th-century layers); there is little stratified material from other contexts, which all contained less than six sherds. As shown in Table 7, most pottery is from Area E, with a lesser amount from Area D. In addition to the finds from the main excavation there are also 89 sherds (8 ENV, 651gm) from HOW60/61: cuttings 1, 2, 3, 4. While the number of contexts is low, this does not reflect the number of finds bags, as the pottery was found in various different grids and or at different co-ordinates.

Area	Contexts	Sherds	ENV	Weight
Area A	22	2	2	71
Area B	5	18	17	207
Area *C*	2	10	10	51
Area D	9	70	65	332
Area E	3	121	113	1117
Area H	0	0	0	0
Area J	1	1	1	12
Area L	1	1	1	28
Total	42	223	209	1818

Table 7: The distribution of post-medieval pottery (excl HOW60/61)

Dating
The bulk of the finds date to the 18th and 19th centuries, but the Surrey-Hampshire border wares and some of the redwares could date to the 16th or 17th century.

Assessment work outstanding (all periods)
Unless the original PEM total was wrong, it appears that there remain some post-medieval finds to be located and recorded.

The date of the Iron Age/Saxon pottery needs to be agreed between relevant specialists.

The figurine(s) need to be accessioned ([2] Area E), ([754]/[763] Area D).
A problem within the Oracle database means that it has not been possible to enter data for [5303] (Area D) and [8780] (Area E) (total six sherds).

5.7 The building material

Ian Betts

Introduction/methodology
A sample of the building material has been recorded using the standard recording forms used by the Museum of London. This has involved fabric analysis undertaken with a x10 binocular microscope. Some, but not all, of the building material information on the recording forms has been added to an Oracle database.

It should be noted that four boxes were only partially recorded due to the large number of contexts in one box: up to 42.

Iron Age Belgic brick?
What may be Belgic brick was found in contexts [1698] (Area D), [851] (ED1, Area E), [7783] (PE2, Area D) and [9655] (MD1, Area L).

Iron Age/Roman daub
A number of daub fragments have wattle impressions and some show signs of burning, whilst another has a wooden lath mark ([7843]: post-hole, Area E). A fragment from [32] (Area A) has part of a curved surface, as does a piece from [1513] (post-hole, Area D), the latter also having circular wattle marks.

Roman ceramic building material

Fabrics
Early Roman fabrics
Fabric group 2815: apart from the three fabrics below, which were all from context [9545] (well, Area H), all the remaining ceramic building material is in this fabric group
Late Roman fabrics
2459B, 2459C, 3050

Forms
Roofing tile
Tegula and imbrices (fabric group 2815, fabric 2459B) are present.

Brick
All the brick (fabric group 2815, fabrics 2459C, 3050) is fragmentary, with little indication of the type present.

Medieval stone building material

Ashlar
There is a block of Reigate stone ashlar from context [495] (Area E). The date is not certain at present but it is probably medieval or early post-medieval.

Medieval ceramic building material

Fabrics
Early medieval fabrics
2273
Late medieval fabrics
2271, 2274, 2586

Forms
Roofing tile
There is a fragment of what may be mid 12th-early 13th century roofing tile (fabric 2273) from context [2] (Area E). It has a covered glaze but the form type cannot be identified.

Peg tile
There are fragments of medieval glazed (some of it splash glazed) peg tile from contexts [2157] (dump, Area D), [2203] (pit, Area D), [7720] (post-hole, Area E) and [8143] (MG4, Area E). These are in fabric types 2271, 2274 and 2586.

Post-medieval stone building material

Roofing
A grey roofing slate was found in context [2852] (Area D).

Post-medieval ceramic building material
Fabrics
Later fabrics
2275, 3032, 3038, 3082, 3090, 3202, 3203, 3259, 3261
Undated fabrics
2271, 2273, 2274, 2276, 2586, 2816, 3033, 3046, 3065, 3094, 3204?, 3228

Forms
Floor tile
A fragment of unglazed floor tile, was found in context [2] (Area E). This has a worn top but would have been around 34mm thick. Further work is required on the fabric to determine its date and source.

Wall tile
Victorian
Victorian wall tiles were found in contexts [2] and [2156] (Area D).

Garden edging tile?
A possibly edging tile for a Victorian garden was found in context [1].

Stove tile
A green glazed stove tile made from a pink and reddish-orange firing clays was found in context [3339] <100> (dump, Area D). This is probably Tudor in date.

Roofing tile
Peg tile
There are a number of peg tiles, particularly from context [2] in a variety of different fabric types: 2271, 2273, 2276, 2586, 2816, 3062, 3094 and 3228. There is also a possibly peg tile in fabric 3204 and a further tile [9515] (MD5, Area G) whose fabric requires further study. Where they survive the fixing holes and all round, with two per tile, which is the most common practise in the London area.

Pantile
There are also pantiles in a variety of fabric types (2275, 3202, 3203, 3082, 3090, 3202, 3259) again mostly from context [2].

Ridge tile
Ridge tiles from either peg tile or pantile roofs were found in contexts [2] and [2158] (dump, Area D) (fabrics 2273: thinner later type, 3090).

Red brick
A few broken fragments of brick were found in context [2]. Some is Victorian or later (fabrics 3038, 3261) whilst a fragment in fabric 3032 is probably mid 17th to 18th century. The rest (fabrics 3033, 3046, 3065) has a more general post-medieval date, although it is probably 16th or 17th century.

Pipe
A Victorian pipe was found in context [1]
Undated stone building material

Wall veneer
Found with probably late medieval/post-medieval peg tile in context [2] (Area E) was a medium grained white marble. It has a cut top and bottom face and is 18mm thick. Although found with peg tile it could be Roman in date.

Rubble
There are fragment of Hassock sandstone and chalk from context [7501] (BD3, Area E).

5.8 The animal bone

Alan Pipe

An assessment of the animal bone was undertaken in 1997 and a full account appears in the NMS assessment report (Greenwood, 1997, Vol. III, Appendix VIII). What follows is an edited version of that document.

This site produced only 0.422 kg, approximately 16 fragments, of moderately well-preserved bone mainly in the 25-75mm size range. This material derived from ox/ox-sized upper limb, sheep/goat head; and cat upper limb, the only recovery of this species from the whole group of assemblages. Evidence suitable for study of age-at-death and stature consisted of only a single measurable bone and three epiphyses; there were no mandibular tooth rows or complete longbones. There was no evidence for butchery or modification.

This very small, poorly preserved Iron Age/Roman assemblage does not provide a worthwhile sample for extensive, detailed further study. The predominance of teeth and longbone, rib and unidentifiable fragments can be assumed to reflect the acidic soil conditions; as a result, no real consideration of carcase-part distribution is feasible.

5.9 The plant remains

John Giorgi
An assessment of the archaeobotanical evidence was undertaken in 1997 and a full account appears in the NMS assessment report (Greenwood, 1997, Vol. III, Appendix IX). What follows is an edited version of that document.

Introduction
Uphall Camp was the first middle Iron Age in the lower Thames basin to be extensively sampled for archaeobotanical remains. This was recovered in the form of charred plant remains (grain, chaff, weed seeds and charcoal) from soil samples and plant impressions found on daub and pottery sherds. These two sources of botanical evidence are considered separately and the resources required for the post-assessment analysis of the material presented. A total of 956 soil samples were collected from the field work; from these 395 flots were selected for assessment.

Charred plant remains

Charred plants remains were present in 286 of the 395 selected flots and contained mixed assemblages of cereal grains, chaff fragments, legumes and weed seeds, together with flecks and small fragments of charcoal. Cereal grains made up the bulk of the charred plant remains. The initial scan suggests that the most frequently recurring grains appear to belong to emmer/spelt wheat (*Triticum dicicccum/spelta*), followed by smaller quantities of barley (*Hordeum sativum*), free-threshing wheat (*Triticum aestivum*) abd oat (*Avena* sp.). Flots from 66 samples were particularly rich, containing several hundred plant items or more.

The vast bulk of the samples, and therefore the plant remains, came from the middle Iron Age period, with the richer flots emerging from Area E. Those features producing the greatest number of very rich assemblages were postholes, ditches and gullies. Structures/features which contained the richest charred plant assemblages were, with the exception of the Roman enclosure ditch, all middle Iron Age in date.

Charcoal samples

Separate charcoal samples were collected and assessed from 36 contexts, taken from a number of areas across the site, although flecks and fragments of charcoal were also found in virtually all of the flots. The majority of the samples yielded fragments of a size large enough to identify and were largely from Areas D and E.

Plant impressions

Fragments of daub from 139 contexts were assessed for the presence of plant impressions. These were from features associated with virtually all of the major structures on site, i.e. round, rectangular, four-poster structures, enclosure ditches etc The frequency of the impressions was generally low (less than 10); nevertheless, daub fragments from 22 contexts contained impressions that could probably be identified to a useful level for interpretive purposes.

Context	Area	Structure	Period
30*	B		IA?
303*	D	RH3	IA
742*	D	FP1	IA?
867	E	FP5	IA
3207*	D	PE1	IA
3214*	D	RH4	IA
3487*	D	PE1	
5328*	D	PE1	IA
5503*	D	PE1	IA?
7776*	E	PE2	IA
7779	E	PE2	IA
7839	E	PE2	IA
8104	E	RH7	IA?
8141	E	MG4	IA
8143	E	MG4	IA
8378	E	ED1	R
9500*	F	MG9	IA
9535*	H	RH6	BA/IA
9616*	J	MD11	R?
9629*	K	MD12	BA?
9657*	L	MD1	R
9692*	L	MD1	R

Table 8: Contexts with frequent (10+) and identifiable plant impressions and selections (*) for further analysis

5.10 The flint

Lynne Bevan

Discussion

The worked flint comprised 271 items, weighing 3.320kg. Flint colours ranged from light to medium brown and grey, often tinged with yellow, although a few items were made from a higher-quality pebble flint of a distinctive translucent brown colour with a deep orange stripe just beneath the cortex. This was most probably Bullhead Bed flint (Cotton 2002, 69), which was also used at Moor Hall Farm, Rainham and Great Arnold's Farm, also in Rainham. The unpredictable quality and occasional thin remnant cortex indicated that most, if not all, of the flint probably originated from a secondary river gravel source.

The earliest items in the assemblage comprised two Later Mesolithic blade cores [426] and [7796] (both Area E). Obviously Neolithic material comprised a leaf-shaped arrowhead [1] (Area D) and several other potentially earlier Neolithic items, including a core used for the production of both narrow flakes and blades ([+], Area D) and a retouched blade ([+], Area K). The remaining cores were flake cores typical of a Later Neolithic to Early Bronze Age date, which tended to have been worked beyond the point of exhaustion, an indication of resource stress and that good quality flint was at a premium. These included two exhausted flake cores ([?+], Area D and [7501], Area E), a core re-used as a scraper ([+], Area D) and a core fragment [28]. An Early Bronze Age thumbnail scraper was identified in the assemblage ([503], Area D). There was also possible evidence of later Bronze Age flintworking in the form of a smashed chunk ([9073], Area E).

Some of the flake cores exhibited evidence of having been re-used as hammerstones and scrapers, attesting to flint-working in the area, as well as perhaps to resource stress and that good quality material was at a premium. The later prehistoric dating of the cores is supported by the broad, squat shape of the majority of waste flakes which were indicative of a Later Neolithic to Early Bronze Age date (Pitts 1978).

There was a high incidence of retouched items in the collection which included 27 scrapers, mainly heavily-utilised end and side and end types, of a general Neolithic to Bronze Age date. Scrapers are, however, a class of material generally associated with habitation *foci* (Schofield 1987).

Although the flint assemblage appears to have extended into the Bronze Age, a higher incidence of scrapers and other tools and lower incidence of struck chunks argue against a Late Bronze Age date for the majority of the assemblage (Bevan fothcoming) in contrast to other sites from the East London Gravels.

Traces of possible utilisation were noted on some of the material, particularly the retouched items, although much of the unretouched flakes and other debitage appears to have sustained edge damage which is easily confused with utilisation.

5.11 The accessioned finds

Angela Wardle

Introduction/Methodology

For this assessment the artefacts were scanned and compared with the available records. Further accessions were identified from among the bulk finds. Details of all accessioned finds were entered on the MoLAS Oracle database. The record is still incomplete as specific objects have not yet been located and it is likely that more will be identified after full examination of the ceramic 'building material'.

Important groups of finds, lithics and querns are assessed elsewhere and these assessments may affect the following discussions and conclusions.

IL-UC83	pre/Iron Age	Roman	Med		unknown	total
Stone					9	9
Flint						0
Ceramic	16			1		17
Glass		2		1		3
Iron	7	1			45	53
Copper	4	1		2	2	9
Lead						0
Silver		1				1
Leather						0
Wood						0
Totals	25	5	0	4	56	92

Table 9: Summary of accessioned finds by material and period for ILF-UC 83/87

Condition of the archive

It has proved difficult to equate the finds records with the boxed artefacts. The Small Find register lists 61 objects for ILF-UC87, 52 of which were located and checked. Numbers of metal artefacts were found in the boxes that had been x-rayed but not accessioned (see below). No lists were found for ILF-UC83. There is some duplication of accession numbers as the 1987 season also started its series of numbers at <1>, but as the site code on the Oracle database includes the relevant Area number, this is not problematical. It is however essential to quote the Area number and context with the accession number to avoid confusion.

The Project Design (MoLAS, 2002) stated that 155 fired clay and stone objects require accessioning. The 1997 assessment quantifies 110 fired clay loom weight fragments, presumably included in this total, but these have not been located. Several weights and other finds given accession numbers on site were also missing; records have been entered on the Oracle database, but with a note that objects were not found. Unaccessioned crucibles from seven contexts recorded by David Starley (in Greenwood, 1997, Vol. III, Appendix III) perhaps included in this total have not been located and are not recorded on the Oracle database.

Most of the metal objects are adequately packaged, but the silica gel in the plastic Stewart boxes is of the coloured variety now considered to be a health hazard. It is being disposed of in accordance with Health and Safety regulations and must be replaced.

The existing assessment (Greenwood, 1997) covers the finds archive in some detail, although there is insufficient cross-referencing to enable rapid identification of specific objects. The finds assessment has been collated from various specialist reports, which are included in full in the appendices to the assessment. The main recommendations still seem valid, although it is not certain that all objects mentioned

have been located and correctly identified on Oracle. Additional refining of the stratigraphic data may modify some of the recommendations.

Summary of artefacts by material

Stone
Three querns are assessed by Hilary Major in Section 5.13. The assemblage includes hones/polishers and natural pebbles, from Iron Age contexts, which appear to have been curated.

A fragment of shale from an Iron Age context (?associated with the metalworking area) is mentioned in the Uphall Camp assessment and interim report (Greenwood, 1997, Vol. III, Appendix II) but does not appear on any finds list and has not been located.

Flint
A small number of worked flints were originally accessioned and further examples were discovered in the bulk material; these were not added to the database before being sent to the lithics specialist.

Ceramic
Fifteen fragments of clay weight are of the Late Iron Age triangular form. It is likely that further examples will be found during further examination of the 'daub' assemblage as recommended by David Starley (in Greenwood 1997, Vol. III, Appendix III). The daub may be included with the building material assemblage which has not been examined fully at assessment. Additionally, 110 fragments are mentioned in the original assessment document (Greenwood 1997, Vol. III, Appendix II). These have not been located, but may be with the building materials/daub.

One crucible <101> [3214] (RH4, Area D), which appears to be of the late Iron Age triangular form ,was recovered from the bulk finds. Crucible fragments of the same form from 7 contexts were identified from boxes of metal working debris by David Starley, but as these have not been located, they have not yet been given accession numbers. They came from contexts, [3174], [3179], [3184], [3214], [7839], [8141], [8142], all Iron Age contexts. These contexts are all from the same group in Area D (RH4), which produced important metal work, as well as several loom weights.

Glass
Three fragments were accessioned, two of Roman date, including a bottle fragment and one piece of 16th century painted window glass <86>.

Iron
The ironwork is very corroded and flaking. It has been x-rayed and the x-ray record is more informative than the objects themselves in their present condition. A number of iron objects were x-rayed but not accessioned: this has now been done. Discrepancies between the number of objects recorded for the 1997 assessment are partly due to the disintegration of the material and partly to current practice of treating nails as bulk finds. Many of the 70 objects examined by Sutherland (Greenwood 1997, Appendix VII) appear to have been bulk finds. Some objects were not located.

There is an important group of tools, structural fittings and scrap metal from (Middle) Iron Age contexts, much of which was identified from x-ray and there are

comprehensive notes by the English Heritage conservator, Amanda Sutherland (Greenwood 1997, Vol. III, Appendix VII). These included a file <26> and a pierced disc with copper-alloy spindle <27>, both from context [3206] (PE1). A full assessment of this material was made by Gareth Darbyshire (Greenwood 1997, Vol. III, Appendix IV). A number of objects were identified for investigative conservation at assessment (listed below). There has clearly been much deterioration as few objects can now be readily identified and many are flaking badly.

Many of the fragments come from contexts containing metalworking debris which were assessed by David Starley at the former Ancient Monuments Laboratory (Greenwood 1997, Vol. III, Appendix III).

Copper alloy

Three potin coins (tin-rich copper alloy), identified by Colin Haselgrove as of Allen's Type 1, are of importance for Iron Age studies (Greenwood 1997, Vol. III, Appendix VI). One <14> [2395] (stake-hole, Area D) is stratified; the other (unstratified) examples are in Redbridge Museum. A Roman coin of 1st/2nd century date <39> is recorded on the finds list, but was not seen.

A quantity of 20th century metalwork was recovered from the topsoil and has not been accessioned.

Silver

A denarius of Severus Alexander came from the same context [2395], as one of the potin coins.

Functional analysis

The finds assemblage from this site is relatively small. Soil conditions have clearly affected the preservation of the artefacts. Metal work is poorly preserved. The iron has corroded badly and there is very little copper alloy (with the exception of modern metals). The tin-rich potin coins and the Roman silver coin have survived comparatively well. It is notable that there are none of the bone artefacts which would be expected in an Iron Age/Roman settlement, presumably a result of the acidic soil conditions.

The majority of the objects that can be dated intrinsically belong to the Iron Age. Most relate to craft and industrial activity, consisting of triangular weights, generally thought to have been used with upright looms, and metalworking debris, hearth bottoms, crucibles and iron tools. The three potin coins are of Iron Age date.

The non-ceramic Roman assemblage is very small, consisting of a well-preserved silver denarius of Severus Alexander and a copper-alloy coin (not seen), two fragments of iron, both potentially tools <11>, a possible saw blade and a knife <59> ?in a leather sheath. There is at least one fragment of Roman vessel glass, but no other domestic or any personal objects. It is possible that some of the fired clay weights are of Roman date as the type continued from the Late Iron Age.

The only medieval artefact from the Uphall Camp area is a barbed arrowhead (HOW 60 <37>), previously assessed by G Darbyshire (Greenwood 1997, Vol. III, Appendix IV).

Provenance of objects

Many of the finds can be linked to structures, such as the round houses or other features, such as ditches and Areas D and E were the most prolific. Of particular note is the evidence for metal-working and the group of iron artefacts from the Iron Age

round houses, particularly RHS 3, 4, and 7. Completion of the grouping will facilitate more detailed stratigraphic analysis.

Assessment work outstanding
Any artefacts retrieved during the analytical phase of the project, particularly from full examination of the ceramic building materials should be recorded and added to the Oracle database.

List of objects for investigative conservation
The following were selected for investigation in the earlier assessment and should be examined further:

Copper alloy
<41> E31[8142] ?bracelet. Iron Age context

Iron
<9>, <11>, <16>, <37>, <45>. <79> (not located at assessment)
<26> file
<27> pierced disc with copper-alloy spindle: ?organic remains
<13> ?knife
<23> ?knife
<20> ?brooch
<29> ?punch
<59> knife in ?leather sheath (not located at assessment)
XRF potin coins (EH)

5.12 Conservation

Liz Goodman

Introduction/methodology
The following assessment of conservation needs for the accessioned and bulk finds from the excavations at Uphall Camp, Ilford, encompasses the requirements for finds analysis, illustration, analytical conservation and long term curation. Work outlined in this document is needed to produce a stable archive in accordance with MAP2 (English Heritage 1992) and the Museum of London's Standards for archive preparation (Museum of London 1999).

Conservation support at the time of the excavation was provided by conservators working for English Heritage. Records of conservation carried out at the fieldwork stage are held in the conservation department of English Heritage.

	Material	No. accessioned	No. conserved	No. to be treated (see below)
Metals	Copper alloy	9 (5 coins)	3 (3 coins) in Redbridge museum	1 (1 coin)
	Iron	53	3	12
	Silver	1 (1 coin)	–	–
Inorganics	Ceramics	15	–	bulk pot
	Glass	3	–	–
	Stone	9	–	–

Table 10: Summary of conservation work

Finds analysis/investigation
The accessioned finds were assessed by visual examination of both the objects and the X-radiographs, closer examination where necessary was carried out using a binocular microscope at high magnification. The accessioned finds were reviewed with reference to the finds assessments by Angela Wardle (section 5.11 of this report).

Twelve iron items and one copper alloy object were identified for further investigation; the majority are from a group of iron tools. Two of the iron objects could not be located and so had to be assessed using the existing records.

The metal and inorganic objects, which make up most of the accessioned items, appear to be stable. The small finds from this site were packed to the standards of the late 1980's, these are now considered to be inadequate for deposition in the LAARC. All the material, including the bulk finds, needs to be re-packed according to current best practice.

5.13 The quernstones

Hilary Major

Introduction
The querns from a number of sites held by the Museum of London were examined; although fairly detailed notes were made at the time of examination, the time allowed for the assessment was insufficient to allow for writing up the catalogue properly. However, the basic information on the querns has been entered into an Excel spreadsheet. At the time, the writer had no detailed information on contexts or phasing. In the light of this, only general comments can be made. Scraps of lava derived from querns from ILF-UC83 came from two contexts.

5.14 The timbers Pamela Greenwood

The only waterlogged wood from the site was found as part of a timber-framed structure in the silts underneath the 20th-century bark-tip. The carpentry was identified by Barbara Colla, then Assistant Curator Local History at the Passmore Edwards Museum as 17th-18th-century in style. It may have been a jetty serving the farm or the Lavender Mount which was of a size and position to have been a windmill-mound. These timbers have been largely left *in situ*.

6 Potential of the data

6.1 Realisation of the original research aims

6.1.1 General

- Aim 1: In co-operation with other relevant agencies to establish limits to a future study area which will address an emerging research agenda for prehistoric and Romano-British activity in East London (English Heritage 1997, 56 (L4) and 60 (MTD11)).

Realisation: The PEM/NMS sites which will be considered together as part of a research agenda for the East London archaeological landscape encompass a variety of geographical and topographical situations. Uphall Camp is located to the west of the group of sites and uniquely lies at the confluence of two watercourses. It therefore provides both a western limit to a future study area, as well as an alternative habitat and settlement pattern, which can make significant contributions to landscape assessment.

- Aim 5: To collate and present the evidence for the ritual or ceremonial activities, and to propose a framework for their development (English Heritage 1997, 44 (PC3)).

Realisation: Although the acidic soil conditions at Uphall Camp had a devastating impact on bone preservation and retrieval, the recovery of a flagon in 1906 (Crouch, 1906) suggests the possibility of burials in the vicinity. In comparison with the domestic assemblages from contemporary phases at Putney, for example, the absence or low numbers of vessels associated with food preparation, the few amphorae and the presence of flagons and beakers could indicate a special activity of some kind. The lack of domestic material recovered from the large enclosure ditch (ED1) might point to the site of the former Iron Age Camp being of special significance in the Roman period. Further assessment and comparative study will help to address these theories.

- Aim 11: To recreate landscapes from historical, archaeological, ecological and topographical data, interpret partitioning, alignments and territory and chart the way successive societies used and transformed the landscape. To demonstrate the extent to which natural and man-made features influenced later land use and settlement patterns in the study area, and in the wider regional context (English Heritage 1997, 56 (L4)).

Realisation: The location of Uphall Camp instantly conveys a way of life: living between the River Roding and the Loxford Water would have provided essential resources for living, defence and trade. Excavations at the site have provided evidence for one of the longest and most continuous spans of activity and settlement from the sites in the study area. There is even the likelihood that the modern housing estate,

which was built across the eastern half of the camp, adhered to spatial patterns within the camp. Further analysis and comparisons will other sites in the study area will help to build a valuable picture of the relationship between successive societies and the landscape.

6.1.2 Ceramic and finds

- Aim 2: In co-operation with other agencies to establish a means of ensuring that prehistoric ceramics and lithics recovered from the site can be assessed and referenced in a commonly agreed and accepted manner.
- Aim 3: In co-operation with other agencies to achieve an understanding of the relationship between the pottery fabrics and forms from the Neolithic through to the Iron Age-Roman transition. The absence of a clear chronological framework for the Iron Age in Essex has been a barrier to understanding regional social and economic processes (Bryant 2000, 14). The project team will establish a regional pottery sequence supported, where possible, by absolute dates (Nixon *et al* 2002, 19–20, English Heritage 1997, 55 (L3)).

Realisation: Further assessment of the prehistoric ceramic assemblage is vital in order to establish a controlled typology that can distinguish between locally made pottery which may marginally blur separate settlement periods and wares which can be attributed to definite chronological periods. Although small changes in the composition of fabrics alone may not refine the chronological framework for Essex, it is essential to acknowledge the subtleties inherent in pottery production on a local scale. There are currently indistinct boundaries between the Early, Middle and Late Iron Age assemblages and also between the Late Iron Age and Early Saxon sherds recovered from Uphall Camp and it is vital to facilitate consultation and comparison, not only between the sites in this research design, but also between local and national specialists themselves.

The lithics assemblage from Uphall must also be given similar consideration, although its problems are less inherent.

6.1.3 Palaeolithic and Mesolithic

- Aim 4: To report on the few finds and features of Palaeolithic and Mesolithic date from the sites in this project, and to relate them to known activity in the locality.

Realisation: No Palaeolithic artefacts were recovered from the site. The occasional recovery of Mesolithic flint tools/debitage suggests activity relating to the waterfront and can be added to evidence from nearby sites.

6.1.4 Bronze Age

- Aim 6: To examine the evidence for the transformation from a ceremonial landscape to an enclosed agrarian landscape with increasingly long-lived patterns of settlement during the late 2nd and 1st millennium BC (Nixon *et al* 2002, 21).

Realisation: There is little evidence to suggest a ceremonial landscape, but a great deal to substantiate an agrarian one. It is essential at this stage to assess the entire prehistoric assemblage, however, before conclusions are reached. The degree of truncation to the features on the site must also be acknowledged, not only from medieval and post-medieval farming and modern buildings, but also by the communities which appear in the archaeological record to have fulfilled longer-lived patterns of settlement.

- Aim 7: To explore the further changes taking place in the agricultural landscape during the 1st millennium BC and the appearance of nucleated settlements in the study area in the late 1st millennium BC and to analyse the associated activity traces (Nixon *et al* 2002, 21, English Heritage 1997, 48 (P8)).

Realisation: Evidence of a nucleated settlement in the late 1st millennium BC is possibly the most prolific area for further research on this site. Complete analysis of the pottery, metal-working and charred grain assemblages, combined with comparison with other sites in the area and elsewhere, will enable the exploration of community changes, phases of occupation and patterns in the agricultural landscape.

6.1.5 Late Iron Age-Roman transition

- Aim 8: To examine and interpret the evidence for the Late Iron Age-Roman transition. In particular to understand the rate, scale and causes of change (Haselgrove et al 2001, English Heritage 1997, 44 (PC4)).

Realisation: The Iron Age/Roman pottery assemblage should be studied for its unusual characteristics and compared with others, especially from sites of non-settlement activities, and other sites in the north-east London area. A combined study may also identify sources of raw materials and trade patterns. The rectangular enclosure (ED1) and its related features are notable for their paucity and date range of finds; the nature of this unusual assemblage merits further investigation may help to answer questions regarding transition and use of the site.

6.1.6 Roman

- Aim 9: To characterise the nature of Roman hinterland occupation, to determine its links with the pre-existing landscape and the wider world, and to explore the nature of activities, chronology and reasons for the changes in land use apparent between the early and later Roman periods (Nixon *et al* 2002, 24–5 and 36–7). To examine critically the notion that a decline in or change of land use occurred in the study area between the middle of the 2nd century AD and the end of the 3rd century AD.

Realisation: Although the bulk of the Roman dating came from riverside defences attributed to the Iron Age, the stratigraphic sequence from excavations at Uphall Camp strongly supports evidence for a multi-functional occupation of the camp in the Roman period. Links with its pre-existing landscape have been suggested in Section 6.1.1 (Aim 5). Further assessment is necessary to confirm the possibility of burials, as well as links with ceremonial practices and military activity. The majority of the

pottery assemblage dates to the 2nd century AD and although the paucity of later ceramics points to a decline in land use, it suggests continued activity in the area.

6.1.7 Medieval and post-medieval

- Aim 10: To characterise the post-Roman development of the East London landscape identifying foci of activity in chronological and spatial terms (English Heritage 1997, 44 (PC5), Nixon *et al* 2002, 38–9).

Realisation: In terms of post-Roman development on the site, it is important to stress the issues outlined in Section 6.1.2 concerning regional pottery dating and local anomalies. It seems likely that a Saxon settlement was intrinsic on the site and that dating from this period can be attributed to a few features. It also seems possible to identify a shift in spatial settlement patterns within the camp both in the Saxon and later periods and to establish changes in the use of the landscape both on the site and in the area.

6.2 General discussion of potential

The research objectives laid out above were framed in order to capitalise on the information the site might provide. It is intended that the archaeological sequence be refined, in order that these research objectives can be achieved. As demonstrated in section 6.1, the stratigraphic archive has the potential to directly address research objectives dealing with Late Bronze Age, Middle Iron Age and Roman land-use. If discussion of the potential of the site is developed in terms of these three main themes, the following general statements of potential can be made.

Finds analysis undertaken for this assessment is currently incomplete, however, and this is especially apparent when compared with the original assessment undertaken by NMS (Greenwood, 1997). It is clear that some of the metal artefacts have badly corroded and that some of the finds have yet to be located. There are also variations in interpretation in some instances and it is clear that these must be addressed. These factors do not deter from the potential of the site, however: they are perhaps expected consequences which require further funding and discussion.

Recent work in west London/Surrey has shown that the Late Bronze Age pottery is locally made from local clays, but some Saxon pottery from Prospect Park has inclusions which occur further north in Britain or in Germany (Andrews 1996a; Laidlaw and Mepham 1996; Williams 1996). In contrast, Late Bronze Age pottery from the Caburn, Sussex is made of non-local clays (Dr S. Hamilton, lecture November, 1996). Such examination can therefore aid the interpretation of a site's status and trading patterns.

Woolwich Beds clay deposits were exposed on the bank of Barking Creek (P. Greenwood pers comm), and it would be of considerable interest to chemically compare samples of this material with the shell-tempered fabrics found at Hunts Hill and Great Arnold's Farm. Petrological analysis should be undertaken to research the sources of stone objects, clays and tempers for ceramics and the origins of the shelly wares and Saxon fabrics and to establish local and semi-local clays and tempers as controls.

Further work on the ceramics and other finds and the stratigraphic record should identify sub-phases within the material, even though the time difference may

be small. Plotting the distribution of the artefacts and ecofacts will show differences within structures and areas as well as between them over the site. All sherds apart from a very few very small and abraded ones, from all types of context including unstratified, should be examined for their contribution to the understanding of the Middle Iron Age settlement and its material culture and to the regional ceramic record.

It is important to acknowledge the abundance of evidence which has been gathered through excavation, not only encompassing the remarkable survival of information from an impressive time-span, but also particularly focussing on several possible patterns within the Iron Age. The key areas identified for further research centre around the Middle Iron Age.

Stratigraphic ordering and the provisional matrix shows that there are possible phases within the Middle Iron Age, although the time-gaps involved are not yet clear. There is the possibility of separating structures into different phases.

The assessment report by G. Darbyshire (Greenwood, 1997, Vol. III, Appendix IV) indicates that the iron assemblage is of high potential, comprising a range of structural fittings, tools, possible weapons and scrap metal, which is very rare in Iron Age contexts. Studied in conjunction with the evidence for non-ferrous metal working and smithing, there is considerable potential for establishing the function of specific site structures and for understanding something of the economy of the settlement.

The potin coins are of significance as the first excavated examples from the area and one of the few multiple finds of Class I potins recovered north of the Thames (Haselgrove, in Greenwood 1997, Vol. III, Appendix VI). As one was found in association with middle Iron Age pottery, it has potential for refining the dating of the type if the pottery date is secured. The presence of several potins will assist in formulation of the overall site chronology.

The non-ceramic Roman assemblage is very small, but may be informative in conjunction with the ceramic assemblage. The Roman coins also offer limited dating evidence. The clear limitations in the scope of the Roman assemblage may be caused by the poor or non-survival of certain materials, but it must be questioned whether the finds result from conventional settlement or other activity, perhaps ritual as suggested by Greenwood (2001), 215. Analysis of the content and distribution of the combined assemblage (pot, querns and other finds) may help to resolve this question.

The Roman building material and daub assemblages are fairly fragmentary, but may be able to identify the type of building activity in the area.

The Roman assemblage adds to the knowledge of Roman activity in the region and, more specifically, appears to represent a specialized site/activity area of some kind unparalleled so far in the London area. The pottery assemblage and the absences of certain kinds of artefact should be compared with other assemblages in the region, such as those from Wanborough Temple, Surrey and beyond where appropriate. It is possible that this is part of some sort of ritual site continuing an Iron Age practice or using the still obvious earthworks as a special enclosure.

The finds assemblage also has the potential for information on trade, sources of raw materials, of identifying production areas for some local/regional coarse pottery. It also shows the changing nature of the pottery assemblage from the Iron Age traditions to the fully Roman (English Heritage 1991). The pottery will contribute to any studies on the nature and character of the Roman assemblages east of the Lea and in the Lower Thames Valley.

The charred plant remains can be used to address a range of questions relating to agricultural economy and human activities on the site, including the range of crop plants, crop husbandry practices, crop-processing activities, the function of different areas and features and the character of the settlement. It should be noted that plant material from 172 flots has yet to be dated and flots from Areas H and L have yet to be located and assessed.

While a large number of the charcoal samples from the site can be identified, it is necessary to consider the context from which the identifiable remains have been recovered; thus priority should be given to those charcoal samples associated with a particular activity, such as hearth and industrial areas. Across the site in both Areas D and E, extensive evidence for metal-working was found, with concentrations of such waste within three round-houses; samples from these structures also produced large charcoal assemblages and it is recommended that these are a priority for species identification.

The site is the most westerly in the project, and also the latest as far as the medieval period is concerned; these factors may account for the presence of a few medieval fabrics that are commonly found in the capital. Most of the medieval sherds are rather small; there are few rims and no vessel profiles.

The main potential of the finds lies in the possible Saxon sherds from HOW60/61, especially as the site is close to the known Saxon settlement of Barking. The potential of these finds can only be realised if further work is carried out on the definition of the fabric types, which there was insufficient time to do during the assessment. It is also important to confirm which sherds are of Iron Age date. The medieval pottery can be used as evidence of dating and can inform on the local economy; this is, however, limited by the fact that many sherds are residual. In the wider context the medieval pottery can be used in the future and in conjunction with other sites, to consider question such as marketing and distribution of pottery in medieval Essex.

The ceramics merit further work to identify the fabrics present with greater certainty to confirm the date range of medieval activity on the site and to gain a greater understanding of the nature of this activity, there being few potential medieval features, and to compare it in general terms with the villages and farm settlements of the area.

There needs to be work in tandem on the finds and the stratigraphic archive to refine the phasing on this multi-period site and to attempt to answer the depositional history of the deposits. It is important to establish which material is *in situ* and which may be redeposited or intrusive for any attempt at solving some of the dating questions and identifying the structures of each period present.

7 Significance of the data

In the north-east London area, a sequence is emerging for the later Bronze Age, Iron Age, Roman and Saxon periods. The study and publication of key sites, such as Hunts Hill Farm and Whitehall Wood in Upminster, Hornchurch Country Park (Albyns Pit) in Hornchurch, Moor Hall Farm in Rainham, Warren Farm in Romford, the rest of Mucking, Barking Abbey and smaller assemblages at other sites on the north-eastern gravels, would provide a basis for the regional chronology and ceramic typology for the later prehistoric period onwards, allowing comparison with other sites in the Lower Thames Valley.

Little is known about the settlement types and patterns for the middle and late Bronze Age in this part of the Thames valley. This is especially the case for the Middle Bronze Age. Sites of these periods are beginning to be found (Needham 1987; Brown 1996; Greenwood, 1997a). The finds can aid the identification of middle and late Bronze Age settlement areas, the definition of their extent and the dating. They can also be used to compare material from other sites, such as the nearby middle Bronze Age activity area at Buttsbury Estate, Ilford (excavations by Frank Meddens, NMS) and other late Bronze Age settlements on the east London gravel terraces (Greenwood, 1997a).

There are few middle Iron Age assemblages published in the London region, exceptions being Caesar's Camp, Heathrow (1944 excavations) (Grimes and Close-Brooks 1993), Ardale School, Aveley, Essex (a smaller and broader phased assemblage) (Wilkinson, 1988), Farningham Hill, Kent (a larger assemblage from an almost completely excavated farmstead enclosure, Philp, 1984), Lower Warbank, Keston, Kent (Philp 1991), Moor Hall Farm, Rainham, Essex (a selection of middle Iron Age pottery) (Greenwood 1982), Gun Hill near Tilbury, Essex (a small assemblage) (Drury and Rodwell 1973) and Caesar's Camp, Keston (the only published middle Iron Age hillfort: a small assemblage from the 1950s/60s sections across the defences, Piercy-Fox, 1969). A major and largely unpublished open Middle Iron Age settlement is Mucking, Essex (Clark 1993). Comparable material may have come from Woolwich Power Station Site (1980s excavations by Brian Philp (SELAU)). This seems to be a Middle Iron Age settlement with defences on a similar scale, lying on the opposite bank of the Thames. Thus the Uphall Camp assemblage is the largest and most varied assemblage of its phase in the region. Furthermore, it comes from the excavated interior settlement within a low-lying hillfort or oppidum, making it of major importance for south-east/eastern England (Geenwood, 1997).

The Middle Iron Age finds assemblage has the potential to identify, in tandem with the stratigraphy, phases, function, spatial patterning, human activities and status, as well as the extent of the settlement and depositional processes.

Uphall Camp has a rare occurrence of Middle Iron Age pottery associated with an early potin coin, an association of national importance (C. Haselgrove, in Greenwood, Vol. III, Appendix VI). Of major importance is the large assemblage of charred seed and plant remains. Most of the artefact and ecofact evidence is concentrated in structures such as round-houses or the penannular enclosures, four-posted structures and related gullies and pits with signs of spatial patterning. Thus there are good stratigraphic relationships as well as spatial distribution for examining site function, activities and status (Greenwood, 1997).

Both the Iron Age and Roman structures with their associated finds are important for studies of the development of settlement in the area and perhaps for continuity between Iron Age and Roman communities. All identified Roman settlements within the hinterland of London are of significance and although the number of non-ceramic finds from this site is low, examination of the pottery may point to sources of supply and possible trade links.

If it can be demonstrated that there is Saxon pottery on the site, this will be of local and regional significance, and will raise questions as to the relationship of the site to that at Barking abbey. The medieval and later pottery is of local significance. Some of the post-medieval pottery is associated with a possible windmill, but the medieval material could represent occupation in the vicinity or be rubbish carted out from Barking. The medieval pottery has some regional significance in that it can contribute to wider research questions such as pottery production and marketing.